EVALUATION OF HOUSING ESTATE DEVELOPMENT IN RELATION TO HOUSING SUPPLY IN MALAYSIA

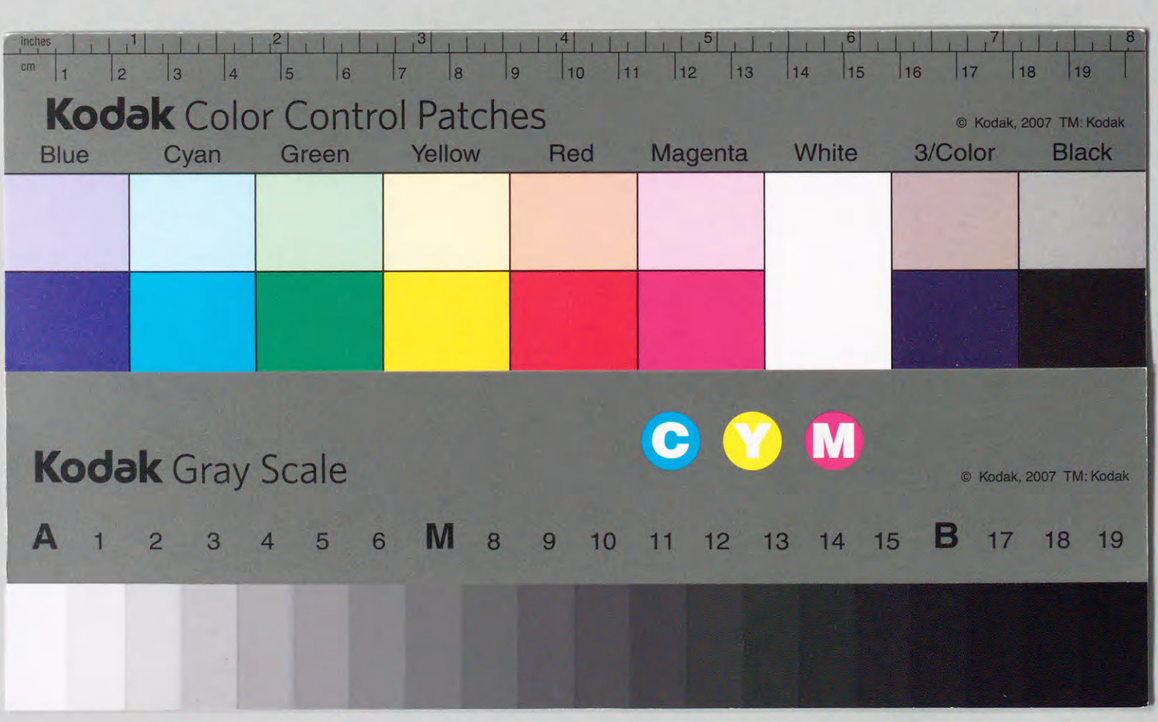
—THE CASE STUDY OF JOHOR BAHRU METROPOLITAN AREA—

JANUARY 1994

DOCTOR OF ENGINEERING

HO CHIN SIONG

TOYOHASHI UNIVERSITY OF TECHNOLOGY



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Evaluation of Housing Estate Development in Relation to Housing Supply in Malaysia.

- The Case Study of Johor Bahru Metropolitan Area -

by

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マレーシアの住宅供給における住宅団地開発の評価に関する研究

～ジョホールバル都市圏の事例研究～

論文要旨

SUMMARY （in Japanese）

マレーシアの住宅団地開発に於て'８０年代後半の開発遅延や「放棄住宅」の急増は、住宅供給計画上の深刻な問題となっている。これらは緊急課題であり、マレーシアの都市経営や住宅供給に関して、学術的のみならず実務的に寄与する研究が必要とされており、本研究はジョホールバル都市圏を対象とし、住宅団地開発の評価を目的として行ったものである。開発途上国で行われる住宅･都市計画研究の限界として、データ未整備による実態把握の困難さがある。そのため①行政当局内の団地開発情報の掘り起こし ②団地居住者へのアンケート調査 ③開発業者や専門家へのヒアリング調査を行った。調査対象を、住宅市場を主役としての行政当局者･開発業者･居住者の三者に設定した。主な知見は次の通りである。

(a)第６次マレーシア計画では、団地立地の不適性、開発業者の問題、認可の遅延をその理由にしているが、筆者の研究では、この他に住宅需給の不整合の意味が大であることが明らかになり、放棄住宅の実態と共に、住宅需給構造を把握することの重要性を示した。

(b)行政当局にも認知されている、着工後に放棄された「放棄住宅」は、実は「氷山の一角」であり、それらは開発認可は受けたが建設されていない広義の「放棄住宅」９万戸余りのわずか２％に過ぎない。また広義の「放棄住宅」は、現在建設中の住宅を含めたトータルフローの５９％を占める。これら「放棄住宅」の効果的な再利用計画と今後の放棄住宅防止策の必要性を示した。

(c)多民族社会･住宅階層混在といったマレーシアの住宅団地の特殊性を考慮し、準･無作為抽出法などの手法を用い、住宅階層･民族･団地立地別等により分析を行った。居住者の住宅所有形態･転入理由･収入･雇用形態に、居住者層の住宅需要の型の把握をし、モデル的な住宅需要像の型設定を行った。これにより、今

後の大がかりな住宅需要調査の為に、有益な基礎知見を提供できた。

(d)効果的な住宅需要に必須である居住者の住宅選択や選好把握では、住宅階層・立地・開発規模・開発年次の開発属性別に傾向が異なるが、特に立地・治安・居住環境が選択要因として最重要視されていることが分かった。

(e)開発に関する試算を行うと、低コスト住宅の価格を一定額以下に固定的に定める現行制度では上昇する建設費に対応できない。また現行の住宅政策による住宅売却制限が住宅内の過密や不法賃貸につながっており、低コスト住宅についての見直しが必要であることを示した。

(f)民間開発業者による住宅建設の役割が急増している点からも、行政当局の遅れがちな開発許認可の改革、住宅需給構造の正しい知見と住宅情報改善が将来の効果的な住宅計画や決定のための必須条件であることが示した。

論文は、第１部マレーシアの住宅供給の概要、第２部事例研究、第３部知見と結論、終章で将来のマレーシアの住宅供給計画のあり方をめぐるモデル的提案を試みた。

EVALUATION OF HOUSING ESTATE DEVELOPMENT IN RELATION TO HOUSING SUPPLY IN MALAYSIA
(The Case of Johor Bahru Metropolitan Area)

S U M M A R Y

The abandoned housing problem which emerged in late 1980's have posed a serious issue to the Authority on the planning and monitoring of housing supply system in Malaysia. This problem has attracted the author's attention to study this housing issue. As this problem is urgent,this research will not only be of academic but also practical contribution to the Malaysian urban management and housing policy formulation. Hence,the main aim of this Study is to evaluate housing estate development in relation to housing supply in Malaysia using Johor Bahru Metropolitan Area as a Case Study.

The most common limitations which many researchers faced in developing countries including Malaysia is the problem of poor data bank and lack of local research material in the field of housing and urban planning. Due to these limitations, three main fieldworks were carried out to collect vital housing and urban management data in the Study Area. The main fieldworks were (i) Documented individual file of housing project survey (ii) Residents questionaire interview (iii) Developers and professionals interview. The framework of survey and analysis was based on the author's Model of housing market interaction where the 3 main parties are the URBAN MANAGERS (Authority), the PRODUCERS (Developers and professionals) and CONSUMERS (Residents). The main findings are as follows:

(a) The Sixth Malaysia Plan reported that abandoned housing is attributed by poor location, developers and contractor problems and approval delays. However, the author's fieldwork survey and brainstorming sessions between the Authority and housing experts showed that apart from the above factors, it should be viewed as a SYMPTOM of the mismatch of housing demand and supply problem. Hence, solution needs a better understanding of abandoned housing profile and urban housing demand and supply pattern.

(b) Abandoned housing problem at construction stage which is known to the public is a 'tip of iceberg' problem only (2% of total pending flow of 94,709 units). The larger hidden problem is the totally unbuilt abandoned housing projects and the committed housing stock which accounts for 59%

of the total housing flow. Some of these projects which are not feasible need to be removed to enable an effective housing supply planning and prevent future abandoned projects.

(c) This Study also introduced and proposed a new research and analysis framework such as Semi random sampling for multi racial and mixed dwelling housing areas to study the overall residents characteristics and demand pattern. The demand pattern had to be grouped by housing category, ethnicity and zones (distance from city centre). There is a distinctive pattern of residents characteristics by house tenure, reasons of migration, income and employment pattern. This sampling result provides a representative conclusion and identification of different types of housing demand groups. This will give directions for large scale survey in the future for housing demand study.

(d) Effective housing demand requires on understanding of not only demographic factors but also residents satisfaction and preferences. Residents satisfaction and preferences vary by different criteria such as housing category, zones, project size and project year. However, the questionaire surveys showed that location, safety and environmental problem were common important factors perceived by the residents as current issues and as priorities in choosing a place of residence.

(e) Author's development costing on Low Cost houses showed that the present price of not more than $22,000 per unit is not feasible due to increasing development cost. The Study also showed that policy which forbid selling of Low Cost houses is not practical due to the overcrowding and illegal renting problem. Hence, there is a need to review current Low Cost Housing Policy related to its pricing and ownership.

(f) The Private sector's increasing role in urban housing supply requires the Authority to reconsider the developers' views seriously on the issue of slow development approval process. This study showed that with a better knowledge of housing demand and supply structure and information management, an effective housing planning and decision making of the Housing Authority can be further enhanced.

The thesis consists of 3 main parts and Annex; Part One – Malaysian housing development background, Part Two – Case Study's findings and Part Three – Findings and conclusion. The Annex provides tentative proposals for future policy formulation based on the above findings and some hypothetical assumptions to guide housing estate development in Malaysia.

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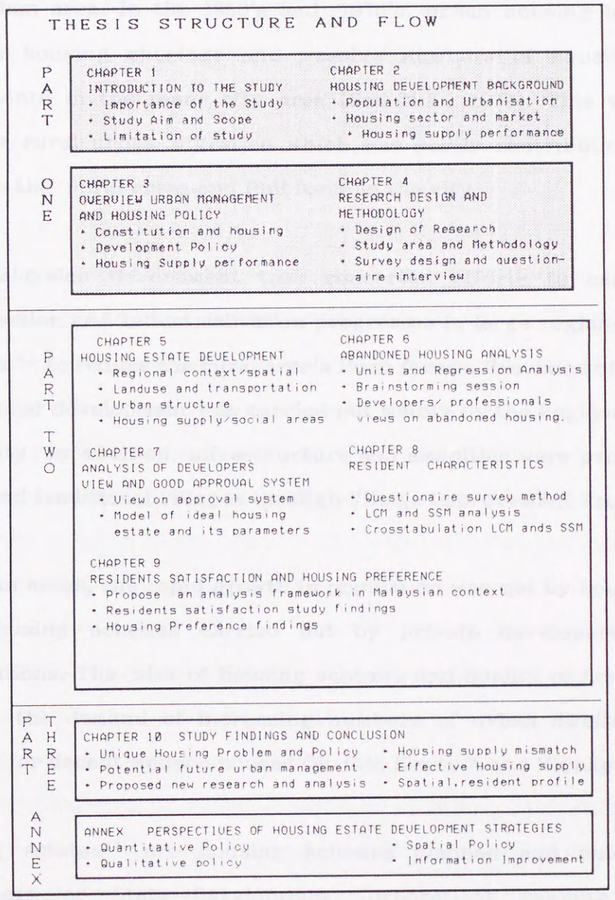
HO CHIN SIONG
January 1994.

PART ONE

INTRODUCTION

PART ONE

Part One consists of four main chapters ; Introduction (Chapter One), Malaysian Housing development Background (Chapter Two), Overview of Urban Management and Housing Policy in Malaysia (Chapter Three) and Research Design and Methodology (Chapter Four).



CHAPTER 1:

INTRODUCTION

1.0 INTRODUCTION

Since Malaysia gained Independence in 1957, the rapid urbanisation of 4% p.a (Ho C.S. and Konno A, 1991) has contributed to rapid housing development in the urban area. In the 1960's and 1970's, urban housing issues included serious housing shortage and massive numbers of squatters and slum settlements in the inner city area (Sen M.K., 1979). This was caused by massive rural-urban migration which was partly contributed by the Push force in the rural areas and Pull force in the city.

The Malaysian Government took concerted efforts to carry out rural urbanisation and industrialisation programme in large regional development projects*1 to reduce the rural area's Push forces. Provision of rural housing in regional development was carried out mainly by the Regional Development Authority. In addition, infrastructure and amenities were provided in rural areas and traditional villages through Village Improvement Programmes.

In urban areas, the rapid growth in population was met by housing mainly in new housing schemes carried out by private developers and public corporations. The size of housing schemes and quality of houses increased to meet the demand of increasing numbers of urban dwellers as well as demand for decent modern houses.(Ho C.S, Konno A and Miyake J. 1993).

Housing estates*2 are housing schemes planned and built by private developers or State Development Corporations ranging from single neighbourhood units of 50 units to townships of 2,000 units or even bigger towns of a size more than 25,000 units. These housing areas are approved by

the Housing Authority and therefore complies with the design standards and minimum facility provision requirements set by the Authority. As Malaysian's Urban management and housing approval system is adopted mainly from the British colonial master, land administration, city planning and building byelaws are passed down after Independence by the British. In spite of the 'planned' housing, new dimensions in housing problems such as abandoned housing, mismatch of housing supply and housing estates residents dissatisfaction towards their living environment are emerging. (Ho C.S. and Konno A, 1990)

1.1 IMPORTANCE OF THE STUDY.

Recently, there is an increasing interest of Japanese researchers in urban housing problems in developing countries such as Malaysia (Yamamura and Oda 1987, Fukushima and Onishi 1991 and 1992), India (Konno and Seguchi 1986),Indonesia (Kobayasahi 1991, Shuji Funo 1992), Bangladesh (Nishina R et al 1992) and Thailand (Iwata Tsukasa, Watanabe Sadao 1990 and Watanabe Seisuke 1991). A lot of the housing researches in Malaysia by Japanese tend to be concentrated on sectorial matters such as studies on rural land schemes (Yamamura and Oda,1987), Privatisation policy and Low cost housing (Fukushima and Onishi 1991 and 1992). On the other hand, there is limited study on housing and urban planning by local researchers. There were several studies in Malaysia in the 1970's on squatters housing (Mc Gee 1968, Sen M K 1975) and general housing supply and needs (Tan S H and Sendut H 1979). All these do not highlight the housing estates development. Presently, housing estates development in Malaysia accounts for about 60% of the total housing stock in urban area and it continues to increase as the urbanisation rate is increasing and the Local Authority is exercising more stringent control over illegal settlements. Therefore the attention of the Housing Authority in evaluating and monitoring its development is required. There is

also a need for a total housing study i.e. Low Cost, Medium Cost and High Cost housing in housing estates to gain a better insight into their physical planning and urban management.

Broadly, the three main reasons that attracted the author to this research on urban housing supply are the seriousness of abandoned housing and the practical and academic contributions from the outcome of this Study.

a) Seriousness of abandoned Housing problem.

The abandoned housing estate[*3] problems which emerged in the mid 1980's posed serious problems to the Government (National, State and Local Government), banker, purchasers and developers especially when housing estates development are on an increasing trend and future abandoned housing should be avoided. The Ministry of Housing and Local Government had taken a serious view towards solving current abandoned projects and preventing future abandoned housing projects in Malaysia. A Committee has also been set up to monitor and control abandoned housing projects. Up to date, there is a lack of understanding on the problem of mismatch of housing supply and demand at the State housing approval level. Hence, this Study attempts to understand the problems and identify possible solutions.

The abandoned housing problem of the mid 1980's reflected the failure of housing market and the ineffective monitoring system of the Government Agencies over private housing development. This problem connoted an oversupply situation which is awkward in developing countries because most developing countries faced problems of housing shortages and have serious squatter housing problem.

b) Academic Contribution – Lacking in urban housing supply researches.

The 5th International Conference of International Research on Housing keynote speech (Choko, M 1992) stated that most of the current housing researches tended to deal with housing needs or demand, policies and implementation. This has neglected the issues of the housing production system which many developing countries are currently confronted with. Based on the above statement, the Study aims to study one of the aspects of the housing production system – housing supply with reference to urban management and housing approval by the Housing Authority.

As in Malaysia, presently, the field of housing production system study is concentrated on aggregate housing supply and demand, planning standards and technical design. There is little research on urban management and housing approval system of the Authority which can be the key to the more efficient use of resources. In particular, there is no specific research on housing estate development in Malaysia.

c) Practical contribution – Malaysian housing policy formulation

The laisser faire approach adopted by the Housing Authority in the mid 1980's had resulted in a massive increase in urban housing stock. The lack of a comprehensive housing and spatial policy to facilitate and monitor massive urban housing supply had resulted in piecemeal approval of housing projects in the 1970's and early 1980's. The Federal and State Governments are looking for an effective housing supply system towards the formulation of housing strategies. This Study followed up a joint-research work on Johor State Housing Study, Malaysia (1991).

The administration of most Housing Authorities in Malaysia is geared towards

an integrated data management system and computerisation of basic housing data. As the current housing data is scarce and piecemeal, this study provides insights towards improvement in the data collection and data management for the Housing Authority.

1.2 AIM AND SCOPE OF THE STUDY

The aim of this Study is to define and understand the housing supply system of housing estate development and to find effective solutions to improve the urban management and approval system of the Housing Authority. In order to achieve the above aim, the objectives of this research are:–

a) to understand the problem of abandoned housing estate development in Malaysia in general and Johor Bahru Metropolitan Area in particular.

b) to evaluate the current problems and potential of housing estates development in relation to the housing supply.

c) to propose tentative housing strategies towards solving housing estate development problems in the Study Area.

Based on the objectives of the Study, the Scope of Study is as follows:–

i) The current Malaysian urban housing development. (Chapter 2)

- to study current housing supply performance.
- to study Malaysian housing market.

ii) Malaysian urban management and housing policy.(Chapter 3)

- to study Malaysian Constitution and housing development.
- to study current development policy and urban management.
- to study current housing approval system related to housing supply.

iii) Housing estate development in Case study Area (Chapter 5)

- to study overall landuse and transportation framework related to housing development.
- to study current housing estate housing supply.
- to study social areas of housing estates.

iv) Abandoned Housing Problems in Case Study Area (Chapter 6)

- to identify the dimension of the abandoned housing problem.
- to identify the possible causes of abandoned housing based on data analysis, developers and professional interview and brainstorming session among experts.

v) Viewpoints of developers, professionals and Housing Authority on Housing development.(Chapter 7)

- to evaluate developers' and professionals' opinion of housing estate development issues
- to identify developers criteria on successful project implementation

vi) Residents demand profile, satisfaction and preference.(Chapter 8 and 9)

- to study the characteristics of the residents of housing estates.
- to evaluate the residents' satisfaction towards their housing environment.
- to evaluate residents' housing preferences.

vii) Main Findings and Conclusion (Chapter 10)

- to summarise and highlight the main findings from all chapters.
- to identify areas for future researches.

viii) Perspectives of housing estates development (Annex)

- to recommend actions and policies for future approval of housing estates based on quantitative, qualitative and spatial components.
- to propose information improvement and model of decision making for more objective approval.

1.3 LIMITATIONS OF HOUSING STUDY

Like most developing countries, Malaysia also faces the problem of poor data bank. Due to the piecemeal data collection and poor data availability, the Local Authority has little information to enable effective decision making for future planning. There is an urgent requirement for a data bank improvement. Presently, housing data is very often aggregate in nature[*4]. This data is used for daily administrative functions and is not useful for planning and research work.

The main implementation Authorities at the State and Local Planning Authority tend to concentrate on the day to day functions of development control rather than forward planning works. As a result, the Federal Town and Country Planning and the State Town and Country Planning Department play important roles in assisting the respective Local Authorities in the preparation of development plans and in data collection.

The Federal Town and Country Department and State Economic Planning Unit coordinate and prepare Planning Studies such as Master Plan, Regional Plans and Structure Plans for the State and Local Government. Most of these studies used published data from the National Population and Housing Census. Presently, the General Population and Housing Census is carried out at ten year intervals starting from 1970. The available published Census data are the 1970 and 1980's. The 1990's Census was carried out in August 1991 and the final report is expected to be published in 1994.

In addition , the confidentiality of urban planning data makes it more difficult for researchers to obtain vital planning information. The limitations of data have imposed constraints on the detailed quantitative, qualitative and spatial data analysis from official sources. Therefore, researchers very often had to carry out fieldwork surveys to obtain primary information.

1.4 CONCLUSION

Based on the current trend of increasing housing estate development, the abandoned housing estate problem and the lack of research, housing estate development should also be given a priority for attention by researchers. Although most developing countries tend to face problems of shortage of houses, the abandoned housing situation in Malaysia reflects a picture of 'oversupply of houses' which is contrary to the 'common sense' of most researchers. This 'oversupply' of approved housing situation is related to the deregulated approval system where massive houses were approved by the Housing Authority in a relatively short span of time (10 years). This problem may occur in other developing countries if their Governments overlook the housing approval and monitoring system on speculative housing development.

In order to understand the above problem, an overview of housing development and policy strategy should be carried out. Due to the limitation of data and poor data bank, fieldwork survey is necessary to gather relevant current data for the research.

NOTES

(1) The large regional land development schemes started in 1970's such as Jengka Triangle Pahang, South East Johor Regional Development Authority Area (KEJORA) Johor, South East Pahang Development Authority Area (DARA) Pahang and other projects to develop frontier regions for agricultural, rural new towns and industrial development.

(2) The definition of a housing estate varies with countries. In Japan and Singapore, housing estates tend to be close to the image of new town development. In many cases, it is high rise apartments when they are developed by public corporations. The Bangkok 'Myuban Jyadsan' suburbs housing estate (Watanabe Seisuke 1992) is very similar to the Malaysian housing estate development.

(3) Abandoned housing is defined quite differently by the State and Federal Government. The Federal Government defines abandoned housing projects as those where the construction work has stopped for more than six months from the date of the Sales and Purchase Agreement. However, the State Government 's definition is wider, as it includes abandoned housing projects at planning stages. Therefore some writers prefer to use other terms such as project stoppage (project terhenti) and project delay (projek tergendala) instead of abandoned housing to give a lower connotation on the problem. (Please Refer to Chapter 6 for detailed explanation on abandoned housing).

(4) The housing data keeping in all Local Authorities are manually done. In addition, the Certificate of Fitness is recorded according to the date of its issue rather than by housing estates. This method of data keeping is difficult for planning use.

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CHAPTER 2 :

BACKGROUND OF HOUSING DEVELOPMENT IN MALAYSIA

2.0 INTRODUCTION

The purpose of this chapter is to provide a brief overview of housing development in Malaysia. Emphasis has been given to housing estate development and evaluation of housing supply situation in Malaysia.

2.1 LOCATION

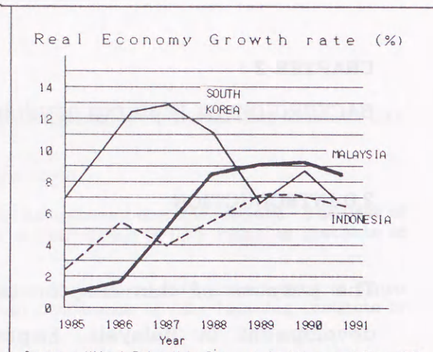
Malaysia is located between 3 N 104 E and 7 N 120 E. Malaysia came into existence on September 16, 1963 as Federation of Malaya, Sabah, Sarawak and Singapore. In 1965, Singapore withdrew from Malaysia. It is a federation of 13 states : 11 in Peninsular Malaysia and two in the northern part of Borneo Island (Sabah and Sarawak). It is one of the ASEAN nations (Association of South East Asian Nations)*1 with high growth and development; GDP per capita of US$2400 and growth rate of about 10% (1990).

Malaysia has a total area of about 332,370 sq km ; slightly smaller than the size of Japan which has a total area of 371,857 sq km. (figure 2.1). The Peninsular States account for 40% of the total land area; the Borneo State of Sabah and Sarawak, more than 650 kilometres to the east of South China Sea account for 60%.*2

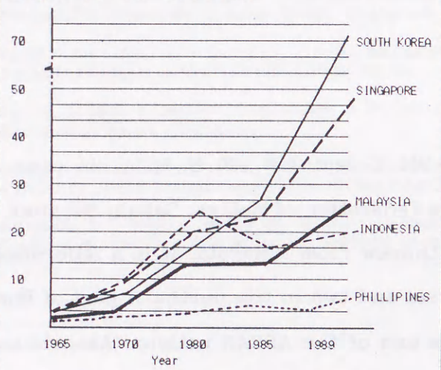
2.2 POPULATION AND URBANISATION PROCESS

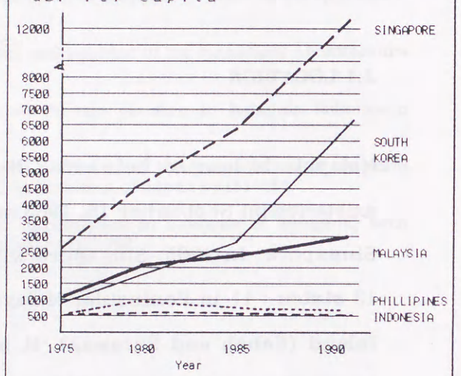
It has a population of 18.6 million and a population density of 60 persons a square kilometre in 1990 (i.e. about 7 times less than Japan's population of about 124 million). The largest city in Malaysia is the Federal Territory of

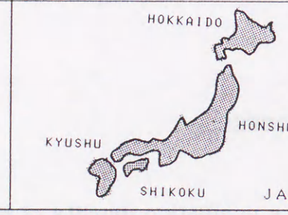
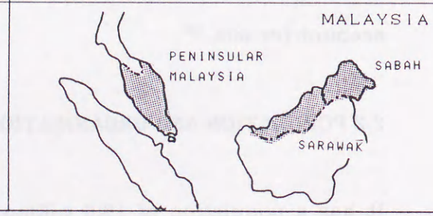
GNP and economic growth Asian nations	Real growth rate of Economy (%) - Mean			GNP per capita estimated in US$
	87-89	1990	1991	
Japan	5.1	5.6	3.8	24,000
South Korea	10.7	9.2	7.4	5,500
Taiwan	9.0	5.2	6.2	8,000
Hong Kong	8.0	2.4	3.5	12,200
Singapore	9.9	8.3	3 to 6	11,900
Thailand	11.6	10.0	8.5	1,400
Malaysia	7.6	9.4	7.8	2,400
Indonesia	6.0	7.5	7.2	600
Phillipines	6.0	3.1	3.9	800



Source : Mitsui Taiyo Kobe Research Institute and Time 1991





STATISTICS	JAPAN **	MALAYSIA ***
Area (sqkm)	377,727sq km with 4 main islands Hokkaido Honshu, Shikoku, Kyushu and 3900 small islands	329,749 sq km consists of 2 main parts - Peninsular Malaysia and North Borneo (Sabah and Sarawak)
Location	45°33' N and 20°25'N about 3,800 km long (N	1° 20' N and 7° 30' N about 740 km (Peninsular)
Administrative Boundary	5 main regions and 47 Prefectures	7 regions and 13 states and one Federal Territory
Population	123.6 million (1990)	17.8 million (1990)
Ethnicity	Japanese (Homogenous)	Multiracial (59% Malay,32% Chinese & 9% Indian)
Growth rate	2.1% p.a (1985)	2.5% p.a (1985) Urban - 4.7 % p.a
Density	332 persons/km2	54 persons/sq km
Household size	3.1 person/household	5.4 persons/household
Persons>65yrs	14%	3.7%
LOCATION MAP		
SCALE 1 CM : 300KM		

Source :** Facts and Figures of Japan (1991 Edition) Foreign Press Centre
:*** Information Malaysia 1990 Yearbook, Berita Publishing Sdn Bhd

Figure 2.1 Comparison of Malaysia and Japan with other Asian nations.

Kuala Lumpur which is also the capital city and its population is about 1.5 million (the size of Kawasaki City), followed by Ipoh , Johor Bahru and Penang (population of about 750,000 persons).

Comparatively, the size of cities in Malaysia is much smaller in relation to most cities in Asia such as Tokyo (12 million), Seoul (9 million), Jakarta (7.5 million), Bangkok (5.5 million), Manila (5.7 million), Madras (5 million) and Delhi (3 million). Inspite of this, it has experienced similar urban problems as other Asian countries such as squatters, slum and massive rural urban migration and problems related to urban poverty (Ho C.S. and Konno A, 1990). This is partly because the high urban population growth rate of 3% to 5% is similar to that in many other developing countries.(figure 2.2)

Similarly, the urban-rural ratio of developing countries like Malaysia, Indonesia, Philippines and Thailand is on the increasing trend. In the case of Malaysia, the population living in the urban areas has doubled in 10 years. The urban population increased from 2.6 million (28%) in 1970, 4.1 million (35%) in 1980 to 5.9 million (37.4%) in 1985. It was projected that the urban population in urban areas will be about 7.0 million or 40.7% of the total population in 1990.

Unlike Japan, Malaysia is a multi racial country consisting of 59% Malay people, 32% Chinese people and 9% Indian people and others. Due to its historical development (refer Appendix 1 : Historical reasons for formation of multi racial population in Peninsular Malaysia) the tripartite division traditionally follows residential and occupational stereotypes. The Government took concerted efforts through the implementation of New Economic Policy in 1971 to eradicate this imbalance in social and economic distribution by ethnic grouping. With the implementation of the National Economic Policy (1970-1990),these stereotypes are changing but residential

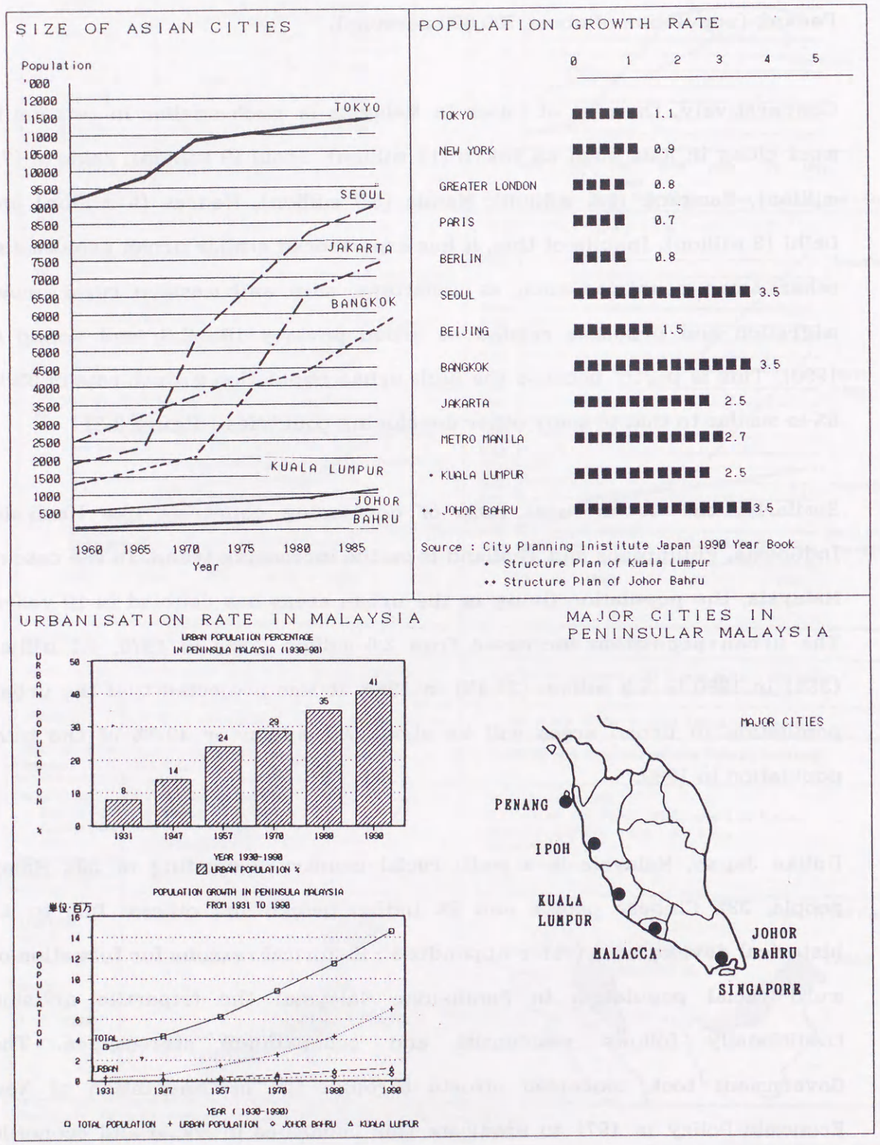


Figure 2.2 The Urbanisation and Population Growth

stereotype pattern in the rural areas is still evident in many places.

2.3 MALAYSIAN HOUSING SECTORS

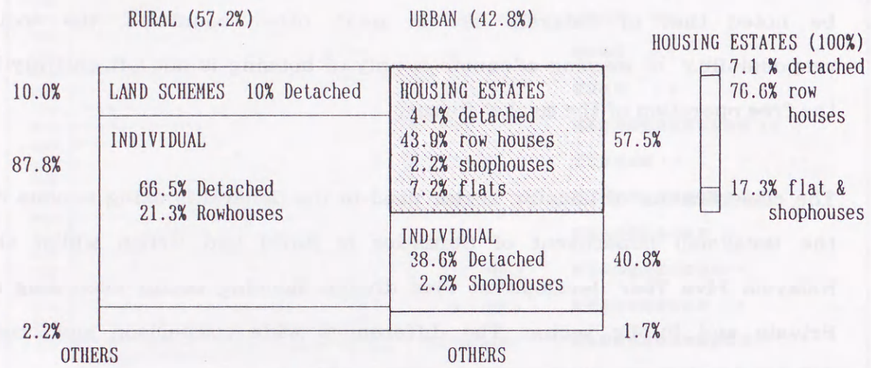
Malaysia follows a free enterprise economy where housing development is usually left to the individuals and private developers (Lim C T,1986). It must be noted that in Malaysia like in many other countries, the social responsibility of meeting adequate supply of housing is not left entirely to the free operation of the market forces.

The classification of housing sector used in the General Housing Census by the Malaysian Department of Statistics is Rural and Urban whilst the Malaysia Five Year Development Plan divides housing sector according to Private and Public sector. The differences made comparison and cross referencing between the two sources impossible.

In this analysis, Rural and Urban sectors will be used due to the availability of relevant data. (figure 2.3)

a) RURAL SECTOR

The rural sector comprises about 57.2% of the total housing stock in Peninsular Malaysia in 1980. It has about 1.2 million living quarters and the majority are detached houses (76.5%). Since 1975, the public rural housing sector,notably in projects such as Federal Land Development Authority (FELDA), Federal Land Consolidation and Rehabilitation Authority (FELCRA), Regional Development Authority and other State and Federal bodies, houses are either built for settlers or villages rehabilitated in rural or new frontier regions. Design of houses and implementation of projects are done inhouse or assisted predominantly by the Federal Public Works Department and Town



LIVING QUARTERS BY TYPES AND STRATUM	RURAL HOUSING		URBAN HOUSING		TOTAL
	Land scheme	Individual (ordered)	House Estates	Individual (ordered)	
Detached	100,000 *	842,036	37,530	351,946	1,332,112
Rowhouses		261,798	405,621		667,419
Apartment		10,944	66,275		77,219
Shophouses		5,610	20,398	21,398	47,406
Rooms		6,688		19,082	25,770
Makeshift etc.		4,197		2,443	6,640
Total	100,000	1,131,873	529,824	394,869	2,156,516
Total by stratum	1,231,873 (57.25%)		924,643 (42.75%)		2,156,516

Note * Estimation on land schemes houses
% Percentage used are absolute
Source : General report of Housing Census 1980
adjusted to estimate the housing estate houses because Housing estate category was not used in the census.

Figure 2.3 Housing units by type and stratum in Peninsular Malaysia (1980)

and Country Planning Department.

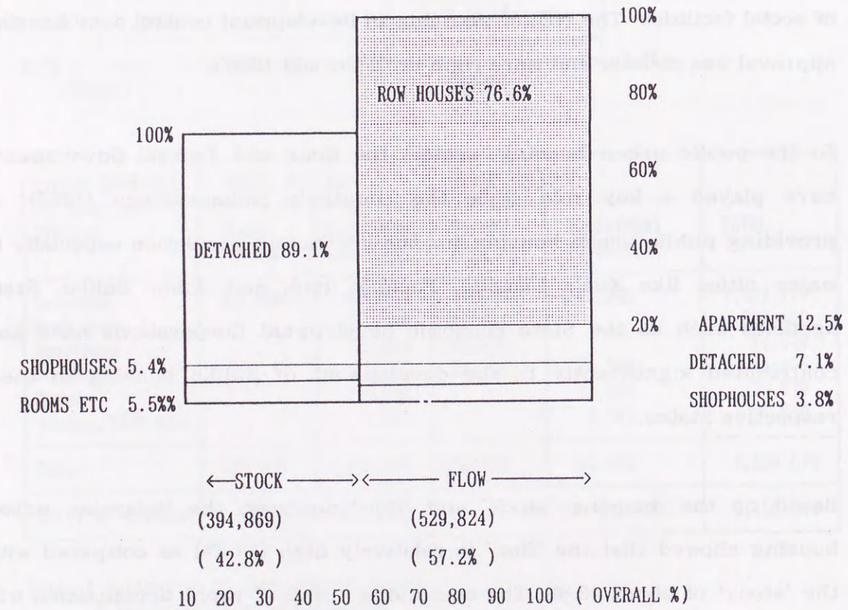
b) URBAN SECTOR

The urban sector consists of about 42.8% of the total housing stock. Out of this total, 57.5% are housing estates and 40.8% individual houses. Majority (76.6%) of houses in housing estates are rowhouses , 12.5% are flats and 7.1% detached houses.

Private housing developers build houses after obtaining relevant approval from the Authorities and then sell them in an open market. The Planning Authority is involved in the determination of design standards and provision of social facilities. The role of planning in Development control over housing approval was stricter and more rigid until the mid 1980's.

In the public urban housing sector, the State and Federal Governments have played a key role since the country's Independence (1957) in providing public urban housing for the low income population especially in major cities like Kuala Lumpur, Penang, Ipoh and Johor Bahru. State agencies such as the State Economic Development Corporations have also contributed significantly to the development of public housing in their respective States.

Based on the housing 'stock' and 'flow' analysis, the Malaysian urban housing showed that the 'flow' is relatively high (57.2%) as compared with the 'stock' of about 42.8%. The continuing trend of rapid urbanisation will further increase the 'flow' and this increase is contributed significantly by the housing estate development. Figure 2.4 shows the proportion of the housing 'stock' and 'flow' in 1980.



Source : General Housing Census 1980 (adjusted)

Figure 2.4 Stock and Flow of urban housing in 1980.

2.4 HISTORICAL TREND OF MALAYSIAN URBAN HOUSING DEVELOPMENT.

The rapid urbanisation and economic growth in Malaysia since 1970 has created a large demand for urban housing. Malaysia's historical urban housing development trend can be divided into 4 main periods as follows :- (figure 2.5)

a) 1957 to 1970 (Predominantly individually initiated housing units)

b) 1970 to 1980 ('Public sector led' Satellite town and public housing)

c) 1981 to 1985 ('Private sector led' Housing estate and Low cost housing)

d) 1985 till now (Continuing privatisation policy and towards a sustainable development)

a) 1957 to 1970 (Predominantly individually initiated housing units)

In the 1950's and 1960's, the economic base was predominantly primary industry. Majority of urban housing stock were 'individually initiated housing units'. Hence, a high percentage of detached, semi-detached as well as shophouses were built. In large cities, Government quarters belonging to the State or Federal Governments were let out to Government servants. Small planned housing projects such as New Villages and Malay Reserve area which were created during the British rule were fairly planned with social facilities and infrastructure.

(b) 1970 to 1980 ('Public sector led' Satellite town and public housing)

In the 1970's , the economy base shifted from primary base to manufacturing sector. The important events related to housing development during this period were New Economic Policy (1970), Oil Crisis (1973), introduction of

Government Loan system to public servants (1976) and Satellite Town movements and high rise public housing mainly built by Local Authorities and public corporations in large cities. The relatively high economic growth in the late 1970's increased the demand for modern housing from the middle and high income population. These modern housing was provided mainly by small and medium sized housing estates development.

(c) 1981 to 85 ('Private sector led' Housing estate and Low cost housing)

This is an important period for national housing policy formulation where the Fourth Malaysia Plan (1981-85) spelled out the role of private sector in social housing. Private developers were required to provide a minimum of 30% of Low Cost houses in approved housing schemes. This led to mixed dwelling urban housing estates comprising High, Medium and Low cost houses. The healthy economic growth during the early 1980's, optimistic economic outlook and deregulation policy led to massive approval of housing estates in the inner and outer fringes of most major cities in Malaysia. The manufacturing sector economy shifted to Heavy industry (the first national car was produced).

(d) 1986 till now (Continuing privatisation policy and towards a sustainable development)

The Fifth(1986-90) and Sixth Malaysia Plan (1991-95) emphasised the privatisation policy in urban housing development. The global recession in 1985 had directly affected the housing industry. The Special Low Cost Housing Programme (SLCHP) with a total of 240,000 units was launched during the Fifth Malaysia Plan period to stimulate the construction industry.

TIME FRAME		1957 TO 1970	1971 - 1980	1981-85	1986- 1990
PLAN	● MALAYSIA PLAN (MP)	FIRST/SECOND MALAYA FIRST MALAYSIA PLAN	SECOND AND THIRD MALAYSIA PLAN	FOURTH MALAYSIA PLAN	FIFTH MALAYSIA PLAN
	MAIN EVENTS	INDEPENDENCE (1957-MALAYA*) MALAYSIA (1963/1965**)	NATIONAL ECONOMIC POLICY (NEP) (1970-1990)		LOOK EAST POLICY MALAYSIA INCORPORATED PRIVATISATION POLICY
NEEDS	● URBANISATION				
	URBAN POPULATION	2.54 MILLION (1970)	→ 4.1 MILLION (1980)	→ 5.9 MILLION (1985)	→ 7.3 MILLION (1990)
	URBAN %	28.8% (1970)	→ 35% (1980)	→ 37.4% (1985)	→ 40.7% (1990)
DEMAND FACTOR	● ECONOMY	MODERATE GROWTH	→ OIL CRISIS (1973) → HIGH GROWTH (1977-81)	→ RECESSION (1985)	→ HIGH GROWTH (1989)
	● SECTOR	PRIMARY INDUSTRY (Rubber, Tin mining etc)	→ MANUFACTURING (Assembling)	→ HEAVY INDUSTRY (First National car project)	→ MEDIUM TECHNOLOGY
	● POLICY	PUBLIC HOUSING GOVERNMENT QUARTER	→ GOVERNMENT LOAN EQUITY POLICY (1976-)	→ PRIVATISATION POLICY IN HOUSING (1983-)	
	● SPATIAL	ADHOC PLANNING	→ SATELLITE TOWN AND HIGH RISE PUBLIC HOUSING (e.g Pasir Gudang, Petaling Jaya)	→ PRIVATE MASSIVE HOUSING ESTATES (MINI TOWNSHIP DEVELOPMENT)	
SUPPLY	● PROJECT SCALE	INDIVIDUAL HOUSES	→ SMALL PRIVATE SCHEME	→ LARGE HOUSING ESTATES	
	● TYPES	DETACHED/SHOPHOUSES→ WOODEN/ SEMIPERMANENT HOUSES	TERRACE/SEMI DETACHED HOUSES.	→ MIXED DWELLING OF LOW MEDIUM AND HIGH COST	

NOTE :* Malaya denominates the Federation of the Malay States including Singapore.
** Malaysia came into being in September 16, 1963 (Consist of Sabah, Sarawak, Singapore and Federation of Malay States.) Singapore seceded in 1965 to become an independent republic.

Figure 2.5 Malaysian historical trend of urban housing development

The future emphasis will shift towards the global trend on sustainable urban housing development.

2.5 MALAYSIAN HOUSING MARKET

The Malaysian housing estate residential property market can be divided into 3 main categories : closed market, semi-open market and open market. The closed market is the State controlled housing and the open and semi-open markets are the 'non Low cost houses' built by private developers. The closed market refers to Low Cost houses where the price is fixed at not more than M$ 22,000 in Johor State (M$25,000 in the other States). In addition, buyers must either be residents of the State or have stayed permanently in the State for more than 4 years. These houses are provided by the public commercial agencies and private developers.

The selection of buyers are carried out by the State Housing Department who carries out balloting based on the qualified applicants. As such, the housing market is not open to those who did not apply for the houses. In addition, one cannot sells the Low Cost house in the open market as it is forbidden under the Sale and Purchase Agreement.

The semi-open and open markets refer to the Medium and High cost housing market where the price of the house operates within the mechanism of the market forces of demand and supply. The semi-open market are houses reserved as Bumiputra (indigenous population) lots where a price discount is given to a Bumiputra buyer when they first purchase it. The 'expressed condition' of a bumiputra lot is that it can only be sold to another bumiputra buyer.

Generally, Housing demand is influenced by the performance of Gross

Domestic Product per capita of the country in general. The Malaysian Housing market showed two periods of significant increase in property prices : 1972-1974 (during the Oil Crisis) and 1978 to 1982 (High Commodities Prices and also the implementation of the Government Loan system. (Goh B.L, 1985, PTG-UTM 1990). The prices stablised from 1983 to 1984 and began to fall from 1985 till 1989. Figure 2.6 shows the Malaysian Housing market performance from 1970 to 1990 and its relationship to Gross Domestic Product (GDP) and typology of housing market.

From the time Malaysia gained Independence in 1957 until the recent recession in 1983-85, the housing market price had always been on the increase. The high demand for houses caused property speculation especially during the boom time in the 1970's and early 1980's. Many large scale housing estates (some as large as 30,000 units) were approved at almost the same time in the late 1970's and 1980's. This phenomenon not only occured in Johor Bahru but was also found throughout the major cities such as Kuala Lumpur, Penang, Ipoh, Seremban, Kuantan and Malacca.

One of the main reasons for the drop in the prices of the properties in 1984 was overbuilding. This overbuilding effect reached a full scale glut in 1985. In terms of house price performance, the recent increase in house price after the recession in mid 1980's is partly due to the lifting of the ban on foreign ownership of residential property. The current increasing trend and possibility of prices increasing more than in other cities such as Kuala Lumpur and Penang is evident as the proximity of Johor Bahru to Singapore has created a market for exclusive condominiums as well as houses in housing estates for investment and residence. These externalities require that the Housing Authority studies and understands further the pattern of demand and supply of houses as well as the housing policy on foreign ownership.

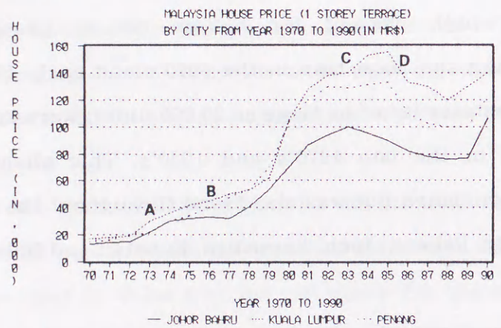
HOUSING MARKET IN JOHOR STATE, MALAYSIA

Housing Market in Johore State unique as private sector is required to provide 40% Low Cost housing units* and additional 40% quota allocated for Bumiputra buyers with price discount of 15% of List price.

40% LOW COST	PRICE NOT MORE THAN RM $22,000		CLOSED MARKET (Sale and balloting done by State Government)
60% MEDIUM AND HIGH COST	OPEN TO ALL BUYERS	PRICE WITH 15% OFF FOR MALAY	OPEN/SEMI OPEN MARKET (Sale is done by the developers office)
	60% OPEN	40% SEMI-OPEN	

* Other States in Malaysia usually require minimum 30% Low Cost housing provision.

HOUSE PRICE PERFORMANCE : SOME MAJOR CITIES



MALAYSIA'S GDP PERFORMANCE : 1973-1990

A – Oil Crisis
B – Housing loan
C – Boom
D – Recession

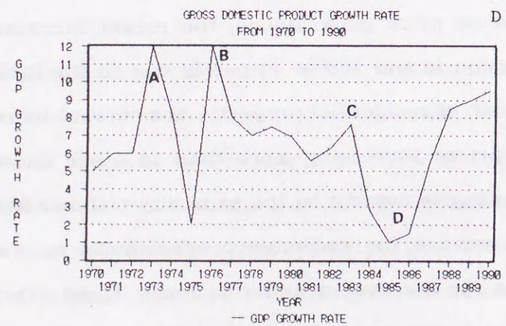


Figure 2.6 Malaysian Housing market

2.6 HOUSING SUPPLY PERFORMANCE AGAINST HOUSING TARGET

The evaluation of achievement is based on the National Five Year Development Plan period which serves as the time series for analysis. This method of measurement has its weakness as the target setting mark will influence achievement results significantly. The setting of targets can be based on housing needs, demand or capacity of developers.

During the Fourth Malaysian Plan (1981–85) and before that, the target was based on housing needs of the population while the Fifth Malaysian Plan set the target for the sector based on the capacity of implementation of the Private and Public sector.

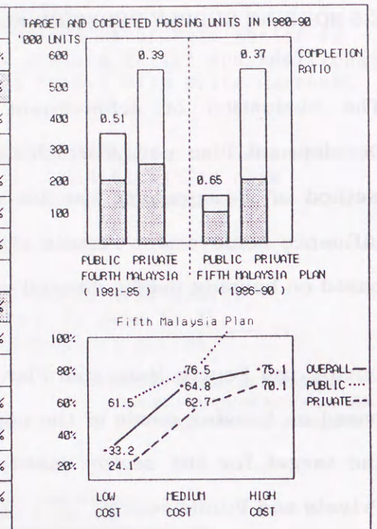
Figure 2.7 shows the target and achievement of houses during the Fourth Malaysian Plan (1981–1985) and Fifth Malaysia Plan (1986–1990). The achievement ratio in both the above Malaysia Plans was very low,(less than 50%) particularly by the private sector (less than 40%). In spite of the change in the method of setting target in the Fifth Malaysia Plan, it still recorded a very low completion ratio. Therefore it is very important to have a better understanding of the housing demand and supply structure.

a) ACHIEVEMENT OF FOURTH MALAYSIAN PLAN(1981–85)

(i) Number and category of houses targeted

Under the Fourth Malaysian Plan, 923,300 units were planned to be constructed in the period 1981–85. This total was based on housing needs arising from the natural increase and from the Third Malaysian Plan's backlog in supply. The Public sector was to build 398,570 units (40%) and the Private sector was to build 524,730 units (60%). The distribution of housing target by house types was 266,500 Low Cost houses (176,500 Public Low Cost

	Programme and Sector	FOURTH MALAYSIA PLAN (1981-85)		
		TARGET	COMPLETED	COMPLETION %
PUBLIC SECTOR	PUBLIC SECTOR	398,570	201,900	50.7%
	Public Low Cost	176,500	71,310	40.4%
	Site and Services	-	-	
	Housing in Land Scheme	110,010	34,980	31.8%
	Institutional quarters	58,500	25,450	43.5%
	High and Medium Cost	53,560	70,160	131.0%
	Commercial Agencies	-	-	
PRIVATE	PRIVATE SECTOR	524,730	204,170	38.9%
	Ordinary Low Cost	90,000	19,170	21.3%
	Special Low Cost	-	-	
	Medium and High	259,470	85,630	33.0%
	Cooperative Societies	25,260	4,570	18.1%
	Individual	150,000	94,800	63.2%
	Total	923,300	406,070	44.0%



	Programme and Sector	FIFTH MALAYSIA PLAN (1986-90)			HOUSING TARGET			COMPLETED HOUSES		
		TARGET	COMPLETED	COMPLETION %	LOW COST	MEDIUM COST	HIGH COST	LOW COST	MEDIUM COST	HIGH COST
PUBLIC SECTOR	PUBLIC SECTOR	149,000	87,126	65.2%	120,900	27,900	200	74,332	21,354	1,440
	Public Low Cost	42,880	26,172	61.0%	42,880	-	-	26,172		
	Site and Services	2,920	-		2,920	-	-	-	-	-
	Housing in Land Scheme	57,500	32,056	55.7%	57,500	-	-	31,826	229	-
	Institutional quarters	27,000	11,284	41.8%	4,400	22,500	100	5,882	5,116	286
	High and Medium Cost									
	Commercial Agencies	18,700	27,614	18.5%	13,200	5,400	100	10,451	16,009	1,154
PRIVATE	PRIVATE SECTOR	552,500	203,802	36.9%	374,100	152,300	26,100	98,064	95,428	10,310
	Ordinary Low Cost	130,400	4,937	3.8%	130,400	-	-	4,937	-	-
	Special Low Cost	240,000	83,940	35.0%	240,000	-	-	83,940	-	-
	Medium and High	169,600	107,442	63.4%	-	146,000	23,600	-	89,741	17,701
	Cooperative Societies	12,500	7,483	59.9%	3,700	6,300	2,500	1,187	5,687	609
	Total	701,500	300,928	42.9%	495,000	180,200	26,300	164,396	116,782	19,750
	COMPLETION RATIO BY HOUSE CATEGORIES							OVERALL	33.2%	64.8%	75.1%
								PRIVATE	24.1%	62.7%	70.1%
								PUBLIC	61.5%	76.5%	72.0 %

NOTE : The housing categories are more detailed in Fifth Malaysia Plan than Fourth Malaysia Plan. Housing categories by Low, Medium and High Cost are clearly divided. Individual housing was not used in Fifth Malaysia Plan. Special Low Cost Housing Program was also being introduced.

Figure 2.7 Housing target and achievement in Malaysia Five Year Development Plan (1981-90)

and 90,000 Private Low Cost houses) and 110,010 houses for land schemes. The balance was 313,030 units of Medium and High Cost houses (53,560 Public and 259,470 Private sector houses), 150,000 units individual houses and 25,260 units of cooperative housing.

(ii) Numbers and category of houses Constructed

By 1986, about 406,100 housing units (44%) were completed and out of this total, 90,480 units were Low Cost (71,310 Public Low cost and 19,170 Private Low cost houses) and 155,790 units were Medium Cost and High Cost houses*4. It was found that the completion ratio of Low Cost houses was low i.e. 34% as compared with the Medium and High Cost of about 49.7%. The Fifth Malaysia Plan reported that the inefficient bureacracy of the Public sector which caused problems such as delay in site identification, delay in tender document preparation and administrative problems had contributed to the low achievement of Public sector in provision of Low Cost houses. The overall achievement was 201,900 units out of 398,600 units (50.7%). Out of the total of 176,500 urban Low Cost houses, 71,300 units (40.4%) were completed.

The Private sector on the other hand had completed 204,170 out of the 524,730 units (38.9%) targeted in 1981-85 . Out of this total, 85,630 units (41.9%) were of Medium and High Cost houses and only 19,170 units were Low Cost houses (21.3% completion ratio) .

b) ACHIEVEMENT OF FIFTH MALAYSIAN PLAN(1986-90)

(i) Number of houses targeted

Although the Government projected that a total of 835,500 units would be required during the Fifth Malaysian Plan (1986-90), only 701,500 units were targeted for construction, given the limitation of funds in both Private and Public sectors as well as implementation constraints.The Public sector was

targeted to build 149,000 units and Private sector 552,500 units (79%)

Of the total, 495,000 housing units were Low Cost, 180,200 Medium Cost and 26,300 High Cost housing units. On the other hand, the Government planned to build 149,000 houses of which 120,900 were Low Cost, 27,900 units Medium and 200 units High Cost. The private sector were to be building 552,500 houses of which 374,100 (67.7%) were to be Low cost and 178,400 (31.3%) Medium Cost and High Cost houses.

(ii) Number and category of houses Constructed

Out of the total targeted 701,500 housing units, only 300,928 units (42.9%) were completed during the Plan period. Out of this total, 164,396 units (54.6%) were Low Cost houses, 116,782 units (38.8%) Medium Cost and 19,750 units (6.6%) High Cost houses.

Overall, the Public sector built 97,126 units (65% of its target) while the Private sector built 203,800 units (37% of its target). In detail, the achievement for Low Cost houses was low, about 164,396 units built (33%) out of its target of 495,000 units. The Public sector completed about 74,330 units (61% of its target) while the Private sector only completed 4,940 units (4% of 'Ordinary Low Cost Scheme' target). In addition, the achievement of Private sector on Special Low Cost Housing Programme (SLCHP) was also low (28%) i.e. 83,940 units out of 240,000 units planned for the period 1986–1989.

(iii) Abandoned houses

The mid 1980's marked a new phenomenon in Malaysian housing industry because of the large number of abandoned housing. There were 277 projects comprising 63,560 units which were abandoned by 1990. These were mainly Private sector housing project, of which 90% were Medium Cost houses involving 36,130 house buyers. The State of Johor recorded the highest

number of abandoned projects and housing units. Figure 2.8 shows the distribution of abandoned housing by States in Peninsular Malaysia.

(iv) Target of Sixth Malaysia Plan

A total of 573,000 units of houses is targeted for construction in the Sixth Malaysia Plan (1991–95). Out of this, the Private sector is targeted to contribute 399,000 units (69.6%) and Public sector to contribute about 174,000 units(30.4%). The high percentage of Private sector contribution indicates that the role of private sector will continue to be important. This is particularly observed in the Private sector role in Low Cost housing sector. Hence, it is important for the Government to understand the reasons for the low achievement ratio of the private sector. Figure 2.9 shows the target of Sixth Malaysia Plan and notes on comparison with the previous Malaysia Plans targets.

2.7 CONCLUSION

The conclusion from this Chapter is as follows:–

(a) Based on the current socio–economic indicators development, Malaysia ranked as an 'advanced' developing country.[*5] Hence problems such as slum and squatters are far less severe as compared with other developing countries such as Indonesia, Phillipines and Thailand in the ASEAN region.

(b) Comparatively, Malaysian cities are small in size. However, the rapid urbanisation process requires careful planning to prevent urban sprawl and slum housing problem. The small city size provides a good opportunity for preventive (pro–active) planning.

(c) Rapid urbanisation caused an increase in housing needs. The relatively

State in Peninsular Malaysia	Nos of Proj	Housing units	Nos of Buyers	Val$) Mil
Johor	40	14,747	10,472	733
Kedah	8	2,095	1,259	81
Kelantan	17	1,942	946	113
Melacca	19	3,544	2,310	176
Negeri Sembilan	29	6,264	3,450	310
Pahang	18	2,610	1,625	124
Perak	40	8,177	4,482	472
Perlis	8	1,012	499	64
Penang	21	4,692	1,819	366
Selangor	52	13,640	7,435	777
Terangganu	18	374	326	46
Federal Territory	7	4,463	1,507	368
Total	277	63,560	36,130	3,63

SOURCE : SIXTH MALAYSIA PLAN (1991-95)

Figure 2.8 Abandoned housing projects in Peninsular Malaysia.

	Programme and Sector	SIXTH MALAYSIA PLAN (1991-95) TARGET	HOUSING CATEGORIES LOW	MEDIUM	HIGH
PUBLIC	PUBLIC SECTOR	174,000	126,000	44,600	2,600
	Public Low Cost	24,430	24,430	-	-
	Site and Services	15,570	15,570	-	-
	Housing in Land Scheme	56,100	56,100	-	-
	Institutional quarters	32,600	17,600	14,700	300
	Commercial Agencies	45,300	13,100	29,900	2,300
PRIVATE	PRIVATE SECTOR	399,000	217,000	155,900	26,100
	Ordinary Low Cost	44,080	44,080	-	-
	Special Low Cost	171,620	171,620	-	-
	Medium and High	170,700	-	145,800	24,900
	Cooperative Societies	12,600	1,300	10,100	1,200
	TOTAL	573,000	343,800	200,500	28,700

NOTES :

SIXTH MALAYSIA PLAN
PRIVATE SECTOR CONTRIBUTION
OVERALL : 69.6%
LOW COST HOUSES : 63.1%
MEDIUM COST HOUSES : 77.8%
HIGH COST HOUSES : 90.9%

PUBLIC SECTOR CONTRIBUTION
OVERALL : 30.4%
LOW COST HOUSES : 36.9%
MEDIUM COST HOUSES : 22.2%
HIGH COST HOUSES : 9.1%

PRIVATE SECTOR HOUSING TARGET CONTRIBUTION

	UNITS	% OF TOTAL TARGET
FOURTH MALAYSIA PLAN	524,730	56.8% OF 923,300
FIFTH MALAYSIA PLAN	552,500	78.8% OF 701,500
SIXTH MALAYSIA PLAN	399,000	69.6% OF 573,000

PRIVATE SECTOR LOW COST HOUSING TARGET CONTRIBUTION

	UNITS	% OF TOTAL TARGET
FOURTH MALAYSIA PLAN	90,000	23.9% OF 376,510
FIFTH MALAYSIA PLAN	374,100	75.6% OF 495,000
SIXTH MALAYSIA PLAN	217,000	63.1% OF 343,000

* Cross reference figure 2.7

SOURCE : SIXTH MALAYSIA PLAN (1991-95)

Figure 2.9 Sixth Malaysia Plan target (1991-95)

stable and high economic growth has changed the trend of housing demand i.e. to one for decent and modern housing due to the increase in middle income population. This demand will be catered mainly by the housing estates development. This is further supported by the housing 'stock' and flow analysis based on 1980's housing census data.

(d) The house price and Gross National Product performance in Malaysia from 1973-1990 tends to show that both factors are strongly related.

(e) The problem of data limitation and inconsistencies of data format made comparative time series housing analysis difficult. Hence, there is a need for common base classification in all housing study to allow cross referencing. The broad category of Private and Public sector housing, Rural and Urban, Low Cost and Non Low Cost (Medium and High Cost) are the basic groupings.

(f) The low achievement (less than 50% completion against target) of housing supply against the target poses questions to the Government i.e. to reconsider the Housing Authority 's control over housing supply, housing target and forecasting techniques on demand and need. The current approval system and policy of the Housing Authority in approving housing without a comprehensive understanding of demand capacity and project feasibility may result in a gross oversupply situation on 'paper'. Although this situation may create a 'perfect market' for buyers which may be beneficial to the general public, the abandoned housing in the mid 1980's proved that it can be a serious problem to the Housing Authority and affected buyers.

The low achievement rate of Private sector especially in the Low Cost housing sector requires the Government's examination of the Private and Public partnership 's implementation policy, Low Cost pricing and quota. At

the same time, the problems faced by developers require the attention of the Government.

Apart from conventional housing supply and demand study based on affordability and demographic criteria, a detailed study on the consumer's evaluation of housing environment, housing preferences, problems faced by developers and Housing Authority will help one to understand the low achievement and abandoned housing problems in housing estate development in Malaysia. These research findings finally aim to provide perspectives on the future housing strategies and to rectify the mismatch in housing demand and supply.

Due to the scale of the problem and data limitation, a Case Study is used to understand the housing supply problems and potential in Malaysia. This is discussed in Part Two.

(g) Based on the Malaysian housing development trend, a conceptual framework can be used to relate the changing pattern of the four main aspects of phenomenon of housing development i.e. urban social structure, housing quality and housing policy. The rationale of time frame are as follows: (figure 2.10)

(i) Before Independence (Colonial period)

(ii) 1970–1990 (Implementation of First Outline Plan)

(iii) 1991– 2020 (Implementation of Second Outline Plan) to

(iv) 2020 and after (Target year to be developed nation)

(1) Urban Social Structure

The Changing social structure from a broad based pyramid (unskilled working class) before Independence to the present 'broader centre band' structure was caused by general economic growth , social mobility and

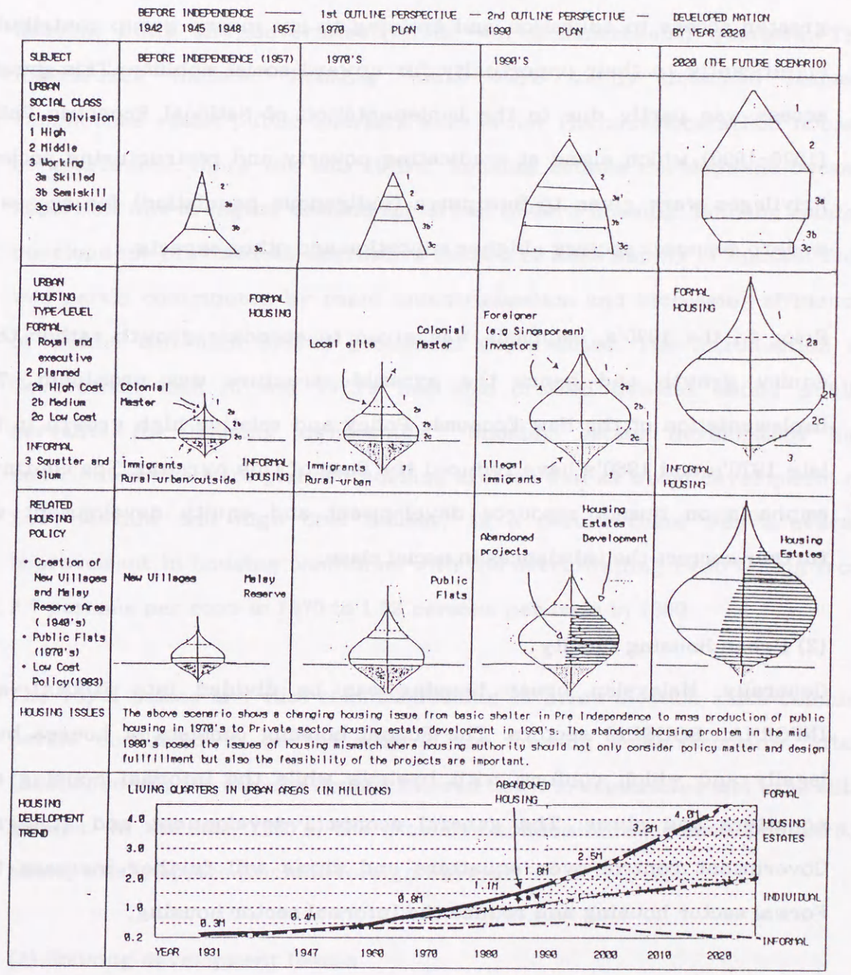


Figure 2.10 Malaysian Urban Housing development– Conceptual development

equity policy. The Industrialisation and Agriculture Modernisation programme launched since the Second Malaysia Plan (1971-75) have contributed to higher economic growth and transformation of economic structure from the traditional to the modern sector. The high priority given to formal education and training programmes helped to increase the literacy rate from less than 50% in the 1950's to about 72% in 1990. The provision of greater access to education and training to low income group contributed significantly to their opportunity for upward social mobility. This greater access was partly due to the implementation of National Economic Policy (1970-1990) which aimed at eradicating poverty and restructuring society. Privileges were given to Bumiputra (indigenous population) for access to modern economic sectors , higher education and other aspects.

Prior to the 1970's, emphasis was given to economic growth rather than equity growth and hence the pyramid structure was prominent. The implementation of the New Economic Policy and relative high growth in the late 1970's and 1980's have reduced the Base of this pyramid. The continual emphasis on human resource development and equity development will further correct the imbalances in social class.

(2) Urban Housing Quality

Generally, Malaysian urban housing can be divided into FORMAL and INFORMAL HOUSING sectors. The Formal housing consists of houses built legally and which conform with byelaws while the informal housing are squatters and slums. The general economic development and stringent Government control over squatters and slums will further increase the Formal sector housing and reduce the Informal sector housing.

The increase in Informal housing in the 1970's was contributed by large rural-urban migration during rapid industrialisation in large cities.The late

1980's and early 1990's rural-urban migration has gradually decreased. However, illegal immigrants from neighbouring countries moving into squatter areas has increased recently particularly near construction sites and industrial estates.

The majority of planned housing in urban areas were individually initiated housing units and Government(Public Works Department) quarters. The individually initiated housing units were mainly detached houses, shophouses whilst public quarters were either rowhouses,detached houses or apartments. Since the late 1970's, housing estates development became important due to higher demand for urban modern housing. Housing estates development provided an alternative method of mass supply of houses. This was partly contributed by rapid industrialisation and increasing affluency of middle and high income groups in major cities. The introduction of Government loan in mid 1970's has also created demand among public servants for housing ownership.*[3] Housing estate development has contributed to a more planned housing area as well as mixed development of Low, Medium and High Cost houses. As a result, there was a overall improvement in housing conditions with the overcrowding ratio falling from 2.7 persons per room in 1970 to 1.62 persons per room in 1980.

The royal palace and elite colonial housing in prime location since Colonial period continued to be the apex of the housing level structure. After Independence, the colonial houses filtered down to expatraites and local elite groups. In the late 1980's, the exclusive condominiums gained popularity among local yuppies (Include foreign buyers).

(3) Housing development Issues

The prominent Malaysian urban housing development issues in Malaysia were the Creation of New Villages and Malay Reserve Areas (1940's), Public flats

(1970's) and Low Cost Housing Policy (1980's).

During the Emergency rule, many New Villages were created in or near existing towns or key villages. The residents of these villages were relocated from fringe and remote areas so that the communists insurgents would not have food or other support from these villagers. The British had also introduced the Malay Reserve Ordinance to protect Malay areas from being encroached by the non Malays by gazetting them as Malay Reserve Areas in the city area. Many of these villages were fairly planned with social facilities and infrastructure.

Public flats were built in the 1970's to house residents relocated from slum or squatter clearance area. The rapid urbanisation and industrialisation in the 1970's have contributed to a large increase of immigrants to the city. Relatively high rise flats were built in the inner city to house the low income population.

Prior to 1983, most of the Low Cost houses were supplied by Public Agencies or Corporations. After 1983, the private sector played a very significant role in Low Cost housing supply especially in housing estates in urban areas. The problem of abandoned housing in the mid 1980's posed a serious issue to the Housing Authority in considering future approvals and monitoring housing supply in Malaysia.

(4) Housing development trend

The urban population and housing units will continue to increase at the current average growth rate of 2.5% from 1980 to 2020. Total living quarters in the year 2020 will be about 4 million. There will be a higher demand for quality and decent modern housing. The traditional approach of housing supply by 'individually initiated housing' is no longer possible because of

massive demand and shortage of residential land in prime locations in urban areas. In addition, suburb developments on individual basis faced problems like the lack of social amenities and expensive infrastructure outlay. Based on the above arguments, housing estate development will continue to be the main source of Malaysian urban housing supply. Therefore, the current abandoned housing estate problem requires curative and preventive policy to ensure that ideal Malaysian housing developments would result in the future.

As Malaysia aims to become a fully developed nation by the year 2020, sustainable housing development will be the future consideration. This conceptual scenario provides a framework for the understanding of urban housing development and forecast the future changing housing structure and needs.

NOTES

(1) ASEAN consists of six nations namely Malaysia, Thailand, Singapore, Indonesia, Phillipines and Brunei.

(2) In Peninsular Malaysia, the Main Range is the mountain range which runs in a north south direction dividing the narrow Peninsular into two distinct regions :
a) West coastal region (more developed due to its good transportation system and natural wealth which is traditionally known as the Tin and Rubber belt and now known as the Western Corridor-Industrial Belt)
b) East coastal region (less developed where rain forest and regional development projects and agricultural land schemes dominate the landscape.)

In Sabah and Sarawak on the other hand, more than 70% of the land is still covered with tropical rain forest, mangrove swamp and secondary jungle. The rugged terrain poses constraints for road and rail transportation and hence most of the economic development is concentrated along the coastal and river fringe.

(3) Prior to the Government's loan system for public servants, most public servants either stayed in Government Quarters or rented private housing or had their own house. In 1976, the Government decided to discontinue building Government Quarters as the cost of maintenance of these quarters was increasing and many other problems emerged.

(4) A total of about 94,800 houses were individually built. There is no data on the status of the category of these houses. They are assumed to be non Low Cost houses. Individual housing grouping was not used in the Fifth Malaysia Plan.

(5) Based on the World Bank Report 1993, Malaysia was ranked as Middle Income Economies (Rank 83 - higher than 82 nations in the world)

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CHAPTER 3 :

OVERVIEW OF URBAN MANAGEMENT AND HOUSING POLICY IN MALAYSIA

3.0 INTRODUCTION

This Chapter focuses on the administrative framework, policy and legislations related to housing development and urban management in Malaysia.

3.1 MALAYSIAN CONSTITUTION AND HOUSING DEVELOPMENT

The Federal Constitution of Malaysia*1 separates the function and power of the State Authority and the Federal Government. The Legislative lists which indicate where the legislative power rests is divided into three main subjects :

a) State List

b) Federal List

c) Concurrent List

The State and Federal list are lists of subjects in which the State Government and Federal Government may exclusively exercise legislative power over respectively. On the other hand, the Concurrent list is the list of subjects in which both the Federal and State Governments may exercise legislative powers. Under the Concurrent List, legislation may not proceed until after consultation between the Governments concerned.

As for urban housing development, the closely related subjects in the Constitution are : (a) Housing, (b) Land (c) Local Government and Local Authority and (d) Urban Planning

a) Housing

Under the Malaysian Constitution, housing is under the Concurrent List. In this respect, both Federal Government and State Government may exercise legislative powers. For instance, the Federal and State Government can carry out housing projects throughout Malaysia. The Ministry of Housing and Local Government exercises power over the licensing of developers and agents related to the housing industry to ensure uniformity of legislation and professional practices.

b) Land

Land is a State matter. Therefore land for the use of housing and other urban uses are under the legislative power of the State Government. The Federal Government has however certain powers over land legislation and development if the National Land Council has voted on a formulated policy relating to land, mining, forestry, agriculture and kindred subjects. This policy is binding on both the Federal and State Governments.

c) Local Government and Local Authority

The Local Authorities and Local Government are principally a matter for the States, but the Federal Government has certain powers of coordination. The Constitution Council for Local Government has policy decisions which are binding on both the Federal and State Government.

d) Urban Planning

Urban planning is under the Concurrent List and hence the Federal Government has the right to tender advice to the States on the technical

aspects of various types of planning and may maintain the necessary research organisations to that end.

Based on the above classification of the Constitution List, housing development is very much influenced by the State Government policy as all development carried out over space or land is a State matter. The Federal Government plays an important advisory and promotional role especially in finance and licensing matters.

3.2 DEVELOPMENT POLICY STRATEGIES FRAMEWORK

In terms of typology, there are several levels of plan policy instruments used : National, State/Regional and Local.(figure 3.1)

The National policy is outlined in the Five Year Malaysian Development Plan. Several separate National Policies such as the National Industrial Master Plan, National Agricultural Policy, Look East Policy, Privatisation and Malaysian Incorporated are also expressed as policy strategies at the national level.

The State Master Plans and Regional Plans intrepret the National Plan into State Development Policy strategy. The State Master plan in the form of Industrial Master Plan, State Action Plan, Indicative plan are prepared and coordinated by the State Economic Planning Unit.

The Structure Plan is a development plan for a region and subregion depending on the size of the State or Study area defined by the Study team. The Structure Plan is a document with written policy statement and key diagrams providing spatial policy strategies for each defined region or an urban area. The Local Plan translates the broad policy statement of the

PLANNING HIERARCHY	DEVELOPMENT PLANS AT MACRO AND MICRO LEVELS
NATIONAL (OVERALL) ▼ NATIONAL (SECTOR) ▼	MACRO POLICY a) Outline Perspective Plan (OPP) - OPP1 : New Economic Policy (NEP)(1970-90) - main objectives i) Eradication of poverty ii)Restructure Society - OPP2 : New Development Policy (NDP) - main objectives i) eradication of hardcore poverty ii)increase Bumiputra participation in modern sector iii)greater private participation b) Sectorial National Policy i) National Urban Policy - based on Growth Pole Development Concept. - the nation is divided into 6 main regions with their growth pole to provide trickling effect from its centre - Regional strategies emphasised on the balance between people prosperity and place prosperity approach. ii) National Housing Policy - officially there is no national housing policy. - National housing goal is expressed as National Housing Owning Democracy where it aims at where every Malaysian has a right to own a house.
STATE ▼ REGIONAL ▼ SUB-REGIONAL ▼ LOCAL	MICRO POLICY a) State Development Plan State Development Plan is usually sectorial in nature such as State Industrial Master Plan, State Agriculture Plan, State Indicator Plan and State Action Plan.There is no legislative requirement or uniform format in the preparation of this plan. But all states are require to prepare their budget plan for the preparation of Five Year Malaysian Development Plan b) Local government & Urban Planning The Local Government Act (Act 171) 1976 provides a single legislation applicable to the Peninsular Malaysia and all the are in a district will be governed by local authority. This Act also revamp the old system which has 8 types of local authorities into 2 categories : Municipality and District Council The Town and Country Planning Act (Act 172) 1976 provides a uniform urban planning legislation in Peninsular Malaysia. It adopted the British model of 2 tiers development plan system ; Structure Plan and Local Plan. c) Housing approval system Housing approval system is one part of housing supply pipeline where it consumes about an average of 4.2 years. The One Stop Agency was set up to speed up the approval process to 2 years. The approval for conversion and subdivision is give by the State State Executive Council under the technical committee's advice.

Figure 3.1 The Development Plan Instruments in Malaysia.

Structure plan into detailed planning guidelines for implementation of physical and landuse planning and development control in a locality within the Structure Plan area.

Generally, the development policy strategies related to housing can be divided into macro and micro levels.

a) MACRO LEVEL DEVELOPMENT STRATEGIES

The macro policy established at Federal level provides and streamlines development framework for the State and Local Government to carry out urban and housing development in each respective State. Among the main policies are as follows:

(i) Outline Perspective Plan (OPP)

The Outline Perspective Plan (OPP) provides the overall perspective goal of the nation. The First OPP was expressed in the National Economic Policy (NEP) in 1970 and currently the Second OPP is the National Development Plan (NDP) which commenced from 1991.

The National Economic Policy was formulated after the racial riots in 1969 to promote growth with equity with the objective of fostering national unity among the races. The two prong objective outlined in the New Economic Policy were : to eradicate poverty and to reduce racial imbalances in income , employment and the ownership of assets. To achieve the objectives of the National Economic Policy, rapid industrial growth and rural development is important to provide employment and income increase.

In the restructuring of society, special privileges are given to the indigenous population (Bumiputra in Malay language) in employment,

education, housing and other sectors of development.

The New Development Policy (NDP) was formulated in 1991 after considering the reports from the National Economic Consultative Council on post 1990's policy for the country. It will build upon the achievements of the NEP(1971-1990) to accelerate the process of eradicating poverty and restructuring society so as to correct social and economic imbalances. It provides broader framework for achieving the social economic objectives in the next ten years within the context of a rapidly expanding economy.

The Objective of the NDP is to attain a balanced development of the economy in order to establish a more united and just nation. The policy will be implemented based on the principle of growth with equity in order to achieve a fair and just distribution for all sections of the society. The strategies outlined under this NDP are:-

- eradication of hardcore poverty
- increase meaningful participation of Bumiputra in modern sectors of economy
- emphasis on greater private sector involvement
- focus on human resource development.

The NDP will provide the foundation to enable Malaysia to become a fully developed nation by the year 2020. This policy will provide a general framework for housing policy in Malaysia until the year 2020.

(ii) National Urban Policy

Unlike Japan, officially, there is no National Comprehensive Spatial Planning policy in Malaysia. Under the Fourth and Fifth Malaysian Plan, spatial strategies can be interpreted as National Urban Policy which attempts to eradicate poverty, correct imbalance in the employment pattern between

races and encourage dispersal of urban development throughout the nation.

Growth Pole development

The six Growth Poles are Penang (North), Kuala Lumpur (Central), Kuantan (East), Johor Bahru (South), Kota Kinabalu (Sabah), Kuching (Sarawak). These Growth Poles are planned to ensure a more balanced development so that surrounding regions of the Growth Poles will have forward and backward linkages and provide positive externalites and trickling down effects to the less developed hinterland. Among these Growth Pole regions, the Southern region or Johor State ranked third after Central and Sabah regions in terms of per capita income. (figure 3.2)

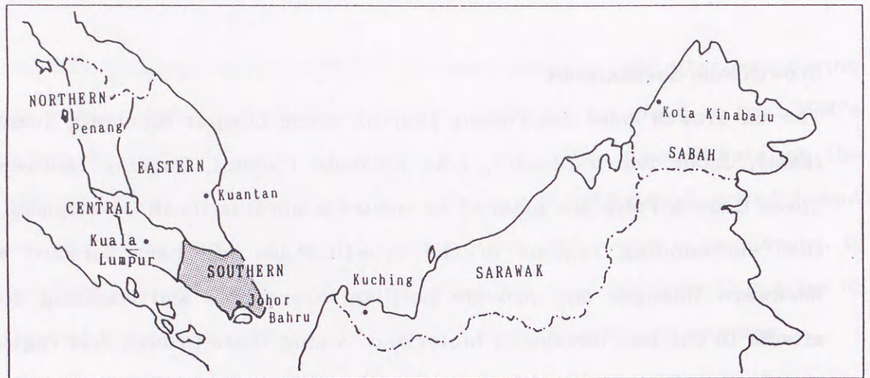
Regional development strategies

Generally, the Government has applied 2 main strategies in carrying out regional development ; (a) People Prosperity approach and (b) Place Prosperity approach. The 'People Prosperity' approach emphasized the movement of people to where the jobs are whilst the 'Place Prosperity' refers to the movement of jobs to where the people are.

Before 1970's the emphasis was placed on 'Place Prosperity' strategy with the aim of minimising the disparity between the developed States (western coastal States) and the relatively undeveloped States (especially the east coast States). The present policy is to strike a balance between the two strategies where attention is planned and directed at the growth of selected industries and more importantly, consideration will be given to the economies of location of industries.(figure 3.3)

(iii) National Housing Policy

There is no well defined document of National Housing Policy in Malaysia. The Housing Policy can be intrepreted from the National Five Year Development



REGIONALISATION	NORTH	CENTRAL	EAST	SOUTH	SABAH	SARAWAK	MALAYSIA
GROWTH POLE (CENTRE)	PENANG	KUALA LUMPUR	KUANTAN	JOHOR BAHRU	K. KINABALU	KUCHING	KUALA LUMPUR
TOTAL AREA (SQ KM)	32,258	16,492	63,898	18,984	73,711	124,450	329,745
POPULATION	4,368	4,893	2,662	1,854	1,288	1,543	15,792
POPULATION DENSITY(PERSON/SQKM)	135	248	42	98	17	12	48
GDP 1985 (MALAYSIAN RGT$)	13,789	21,781	8,281	8,183	4,578	4,768	59,344
GDP PER CAPITA (M'SIAN RGT$)	3,162	5,322	3,111	3,324	3,572	3,572	3,758

Source : Fifth Malaysian Plan (1986-1990)

Figure 3.2 The Growth Pole in Peninsular Malaysia

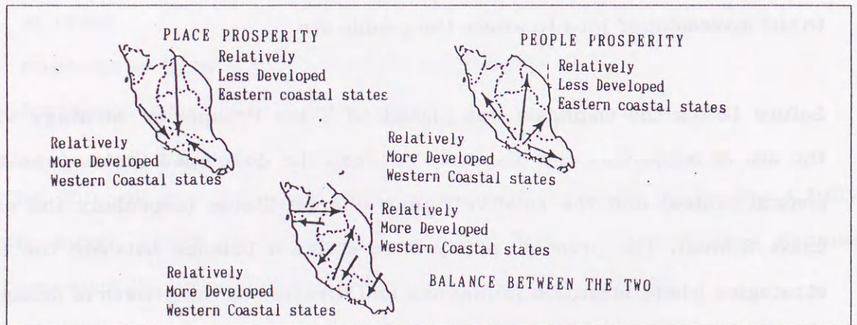


Figure 3.3 The Regional Planning and Development Policy

Plan. The main goal is basically geared towards meeting the objective of ensuring access to adequate and decent house to all Malaysians particularly the Low Income population. Government subsidies and privatisation programmes are important to ensure that more Low Cost houses are provided to cater to the needs of the low income group. Since the Fourth Malaysia Plan (1981–85), Government Policy has stipulated that private developers contribute a minimum of 30% of Low Cost houses. The Fifth(1986–90) and Sixth Malaysia Plan(1991–95) emphasised the increasing role of private sector in Low Cost housing provision. This was also clearly seen in the reducing Federal allocation and expenditure for Public Housing from 5.3% in 1981–85, 4.1% in 1986–1990 and 1.5% in 1991–95. In addition, housing development is also recognised as an 'important engine of growth' to stimulate the nation's economic development. This was particularly evident during the mid 1980's recesssion, where a Special Low Cost Housing Programme (SLCHP) of 240,000 units was launched in 1986 as an anti recession measure to stimulate economic growth and to increase supply of Low Cost houses.

(b) MICRO LEVEL DEVELOPMENT POLICY

Micro policy level translates the macro policy at State and Local Government level. It is more concerned with the Urban Management system and housing supply system at the approval process.

(i) The Local Government administration system

The Government has made several attempts to improve and revamp the old Local Government system by adopting the Local Government Act (17) 1976. This Act changed the old system of Local Government which had 8 types of Local Authorities into two main categories; Municipality/City Hall and District Councils. This system provides a single legislation applicable to the whole

nation and all the areas in a district will be governed by a Local Authority. Figure 3.4 shows the difference in division of administrative areas between the new and old system of Local Government and Land administration.

(ii) Urban planning and development control system

During the same year, the Town and Country Planning Act 172, 1976 was also passed by the Parliament to provide a uniform legislation that covered the whole of Peninsular Malaysia. Figure 3.5 shows how the old system of General Town Plan was replaced with a 2 tier plan; Structure Plan and Local Plan. The Structure Plan is a policy plan that provides the framework for detailed planning at the Local Plan level.

The new legislations function as powerful instruments and machinery in exercising planning function in the Local Planning Authorities. This new system provides uniform administrative framework for the Local Authorities in the country.

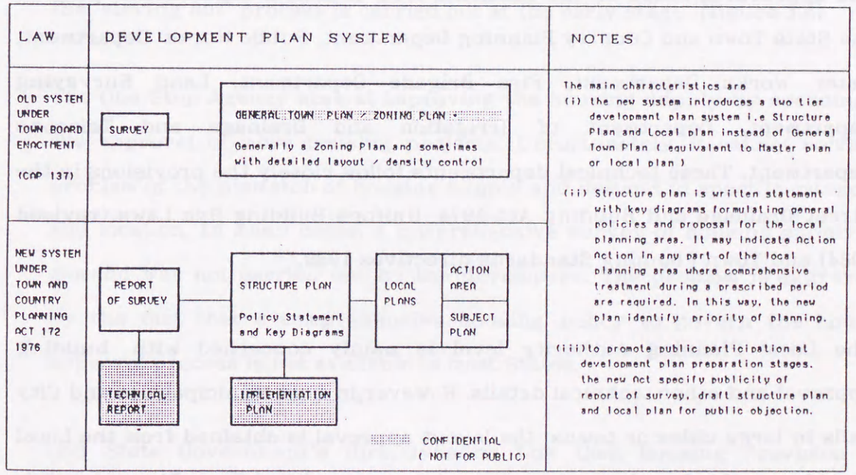
As discussed in Section 3.1, the Federal Constitution of Malaysia separates the function and power of the State Authority and Federal Government. As both the Acts are not under the State lists, the State Government has the power to adopt fully or partially the relevant sections of the Act. The adoption of the Local Government Act was done by most States soon after the Act was passed in Parliament.

However, the Town and Country Planning Act,1976 has not been fully adopted by most of the States even until today (after almost 16 years). Even in those States where the Town and Country Planning Act was adopted fully, the preparation of the Structure Plans for the Local Authorities have not been completed until today. There are many instances where Local Plans were prepared but did not serve as a legal document for planning control

Land Administration	Local Authority Administration (the new and old system defined in law)	
National Land Code (Act 56),1965 (Sec.11)	Local Government Act (Act 171)1976 (Sec 3)	Town Board Ordinance e.g Cap 137 or Cap 118
District Subdistrict Mukim Town Village ▼	City Hall Municipal Council District Council 3 categories	City Council Municipal Council Town Board Town Council Local Council District Council Rural Board Board of Management 8 categories

- The legislation provides the State Authority the power to define boundary of the administrative units and declaration of any area a local authority.
- The Local Government Act 1976 revamped the old system from 8 categories of local authorities to 3 categories.
- The difference in administrative boundary defined in land administration and local authority make data collection difficult.

Figure 3.4 The Administration area under New and old Local Government Act.



* General Town Plan under the Town Board Enactment is subject to public inspection but in practice most local authorities carry out their development control based on ungazetted zoning plan or Master Plan and therefore it is not open to public.

Figure 3.5 The Structure Plan System

and enforcement.

(iii) Housing approval system

The development planning process for a private housing development is somewhat complicated by the fact that in different States the development approval procedures and physical planning standards are different. The lack of uniformity of legislation and procedure made it difficult and confusing to developers. Approvals from several different Authorities are required before a housing project can commence. This may take 2 to 10 years depending on the complexity of the land title and size of the housing schemes.

The approval for land conversion and subdivision*[2] rests in the power of the State Executive Council whereby the chairman is the Chief Minister, the Head of the State. The Council is advised by the Director of Lands and Mines and approval is based on the comments from technical departments such as the State Town and Country Planning Department, Public Works Department, Water Works Department, Fire Brigade Department, Land Surveying Department, Department of Irrigation and Drainage and Telecoms Department. These technical departments follow closely the provisions in the Street Drainage and Building Act 1974, Uniform Building Bye Laws (revised 1984) and Town Planning Standards directives 1988.*[3]

The Local Planning Authority level is mainly concerned with building approval and other technical details. However,in most Municipalities and City Halls in large cities or towns, the layout approval is obtained from the Local Planning Authority where there is an inhouse qualified Town Planner rather than from the State Town and Country Planning Department.

The Malaysian Government has attempted to speed up the approval process

by implementing the One Stop Agency (One Stop Agency Manual, 1984). The One Stop Agency requires all relevant approving agencies to process the application within a stipulated period of time (less than 3 months for principal approval and about one year for detailed layout approval). This procedure involves two stages of approval : Principal and Final approval. Principal Approval will be given by the State Government upon the advice of the State technical and land departments where the Director of Lands and Mines office functions as the Secretariat. The Final approval on land conversion and subdivision will be given by the State Executive Council which is chaired by the Chief Minister of the State.

Under this system, developers will only be required to prepare the conceptual plan at the 1st stage. Detailed layout approval will be done only after obtaining the approval in principal from the technical Committee. Hence the State Executive Council need not entertain all housing applications since the 'sieving out' process is carried out at the early stage. (figure 3.6)

The One Stop Agency aims at improving the housing supply by speeding up the approval of more housing projects. Unfortunately, it cannot solve the problem of the mismatch of housing supply and demand in specific categories and location. In many cases, a comprehensive survey of housing supply and demand was not carried out by the developers. The problem is aggravated by the fact that a comprehensive housing policy to govern the housing approval process is not available in most States.

(iv) State Government's directives on Low Cost Housing Provision and Bumiputra allocation

Under the Constitution, the land matters lies in the jurisdiction of the State Government, hence the State Authority has the power to impose conditions such as Low Cost Housing provision and Bumiputra housing lot allocation

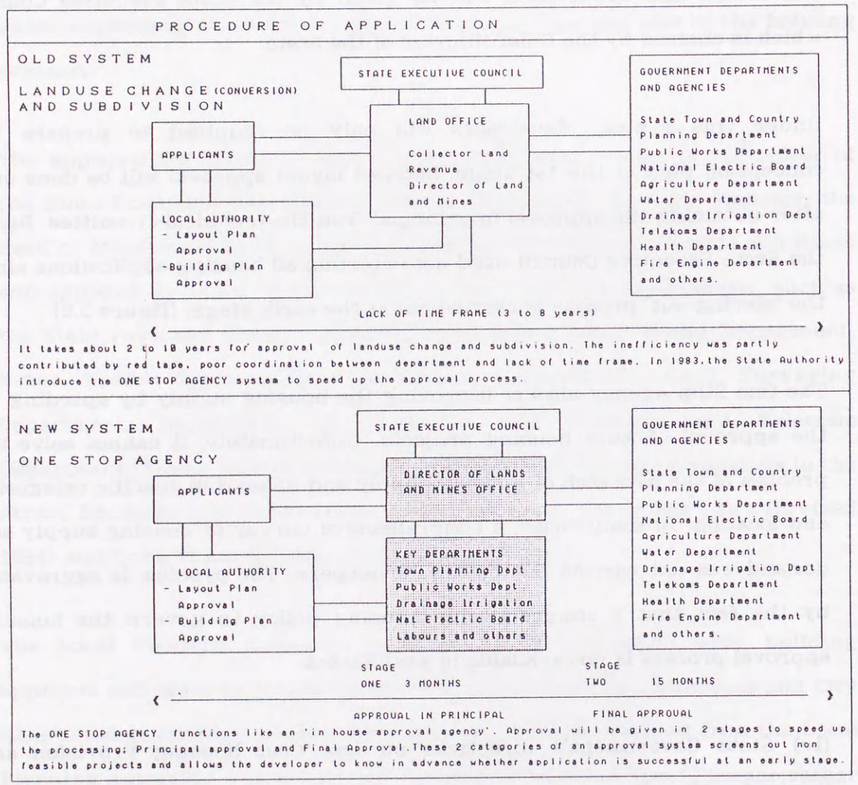


Figure 3.6 Procedure of Landuse change and subdivision of land and layout approval in One Stop Agency system.

when approving a housing project. Different States have different requirements on Low Cost housing provision and pricing. Generally, the prices of Low Cost housing is fixed at a range of not more $22,000 to $25,000 per unit. Most State Governments fixed a quota of not less than 30% Low Cost housing in each housing estate approved by the Government. However, the State Government of Johor's directives are 'strictest' where it requires 40% of the total approved housing to be allocated for Bumiputra buyers and sold to them at a price discount of 15% of the list price. The developer may sell to non Bumiputra buyers after a one year lapse on condition that there are no takers from Bumiputras.

The selection of buyers are carried out by the State Housing Department where balloting is used to choose qualified applicants. To qualify for the Low Cost houses, buyers must be married, age not more than 30 years, have an income > $500 and less than $1000 per month. Privileges are given to ex servicemen. Buyers must either be residents of the State or have stayed permanently in the State for more than 4 years.

This policy uses the principle of cross-subsidy from Non Low Cost house buyers to Low Cost House buyers as compared with the inverse proportional tax system where the higher income pay a higher percentage of tax. The former method is carried out by the developers whilst the later is carried out by Government. In larger projects, the non Low Cost houses includes industrial lots, shopping complexes and other commercial space (figure 3.7).

(v) Restrictions on Foreign ownership on residential property

Generally all States have restriction on foreign ownership on residential property. In the Case Study area i.e. in the State of Johor, the Restrictions on foreign ownership were imposed in 1971 after high speculative buying from the Singaporeans. The restrictions of foreign ownership on residential

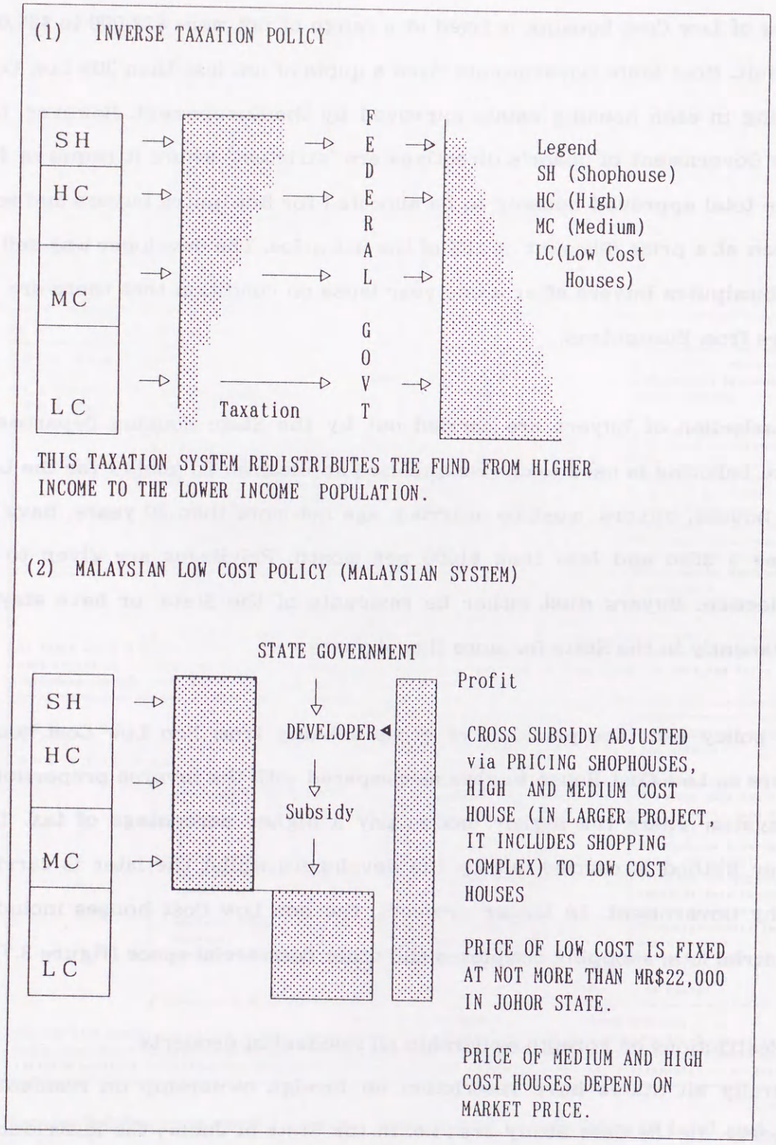


Figure 3.7 Low Cost Housing Policy Conditions

property was lifted in 1987 to resuscitate the sluggish housing industry. (New Straits Times, May 22 1987). The lifting of the restrictions have contributed to a 170% increase in house ownership by the Singaporeans (from 353 units in 1989 to 601 units in 1990) in the Study Area.(Berita Minggu, April 14 1991).

3.3 HOUSING SUPPLY PROCESS IN THE STUDY AREA

(a) HOUSING SUPPLY STAGES

Broadly, housing supply is a pipeline process and can be divided into the following stages:- (figure 3.8)

i) Feasibility and Design

ii) Development Approval

iii) Sale and Construction

iv) Occupation of residents

i) Feasibility and Design Stage

The feasibility study for a project is usually done by the developer. In many cases, the feasibility study to be submitted to the financial institution for loan purposes is usually prepared by qualified property valuers. Developers engage professional architects for preparing the layout and architectural plan for the proposed housing scheme. Since 1989, Johor Bahru Municipality has given directives to developers that layout plans of housing schemes of more than 1 hectare require the endorsement of a qualified Town Planner.

ii) Development approval

The development approval process involves planning permission, land conversion (if the existing land use is not under building category) and subdivision of land. The old system of approval process was lengthy because

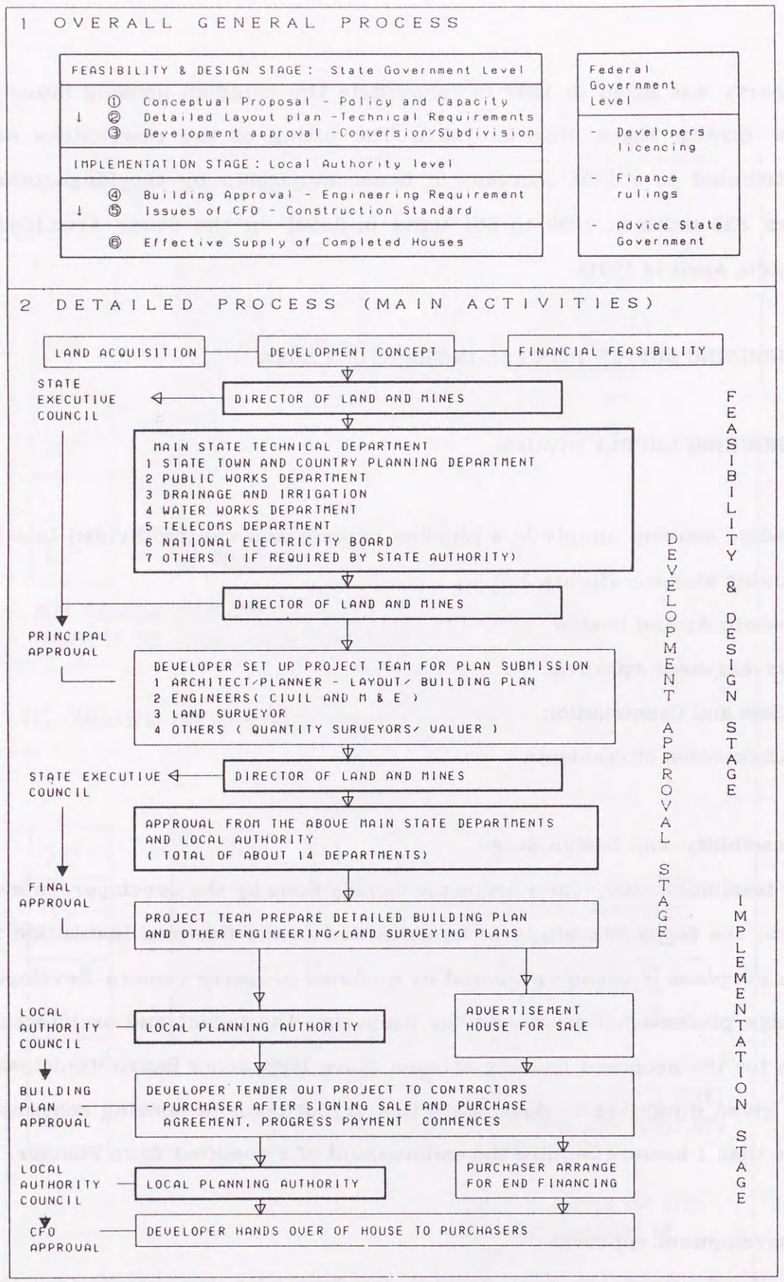


Figure 3.8 Housing estates development process

developers had to submit the completed plans to different Authorities. There were a total of about 14 departments involved in the approval. The new system commonly known as the 'One Stop Agency' is coordinated by the Director of Land and Mines office which functions as coordinator for the approval. The approval process is divided into 2 stages : (1) principal approval and (2)final approval. Hence a developer would know whether a project is accepted or rejected earlier (at First stage).

iii) Sale and Construction

Advertisement and sale of houses by developers are usually carried out before actual construction work. In the case of large housing estates, the sale is carried out in phases. An interested buyer of the house will enter a into a Sale and Purchase Agreement with the developer. This is usually arranged by a lawyer and the buyer will have to pay the first payment of about 10% of the house price to the developer. Subsequent progress payments are carried out as stipulated in the Sale and Purchase Agreement (which is usually based on progress construction work on site).

The Construction of houses are carried out after approval of the building plan from the respective Local Authorities. Construction is usually carried out in phases for larger housing schemes.

End financing is arranged by the developer or the buyer's own financial institution.

iv) Occupation by the residents

The residents move into the completed houses only after the issue of Certificate of Fitness for Occupation (CFO) by the Local Authority.

3.4 PARTIES IN HOUSING SUPPLY SYSTEM.

Based on the housing suppply process in Malaysian housing industry, the three main parties playing key roles in the housing market can be summarised in figure 3.9 as follows :-

a) Policy makers (urban managers)

b) Developers (producers)

c) Consumers (residents)

The interaction of these 3 parties affect the urban housing market and this is manifested as the urban landuse structure of the city.

a) Roles of urban managers

The Policy makers are urban managers since they manage the urban environment. Policy makers in housing are from the Federal and State Government. The Federal Government controls the licensing[*4] of developer and financing regulations[*5] to monitor and promote private housing development. The State Government influences directly the implementation of physical planning, building control and housing supply system such as approval process in conversion and subdivision of land.

b) Roles of producers

The developers in the private sector and public enterprises produce houses. Hence, they have a great reponsibility in housing supply market and in ensuring that houses sold are completed. The current system favours the developers as there is little risk undertaken by the developer. The developers collect house deposits from buyers and upon construction of certain stages , the developers receive further progress payments from the

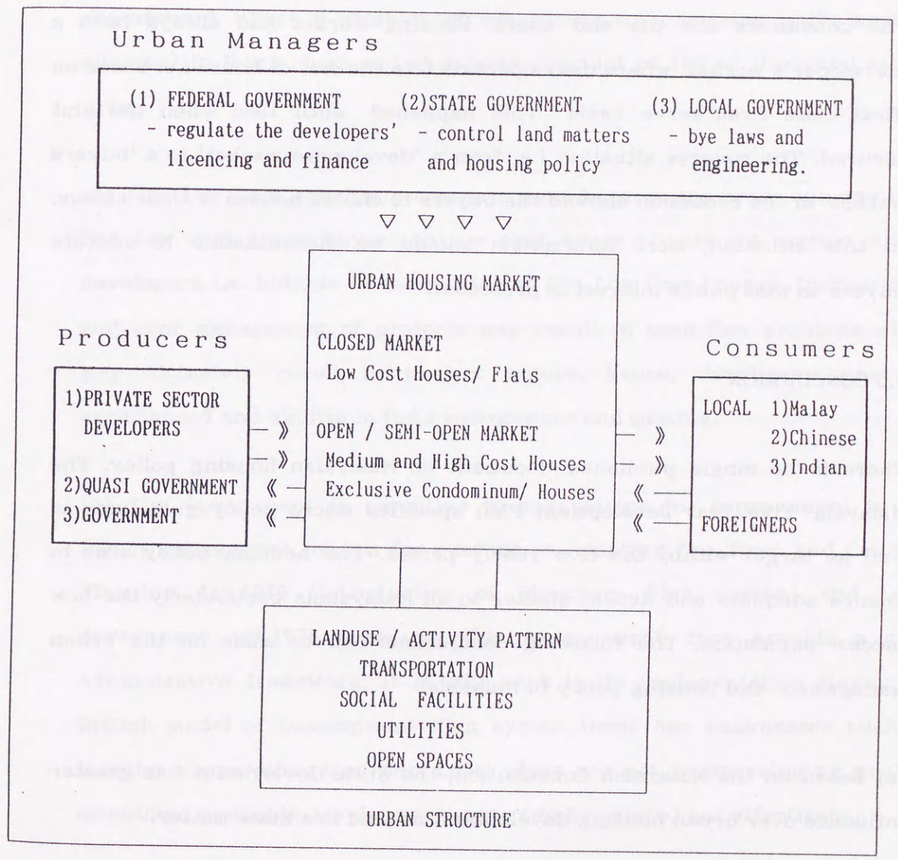


Figure 3.9 Parties in the Housing market

buyers. As a result, the advanced deposits meant for housing projects can be misused by the developers for their own business. The whole process is like a chain from the buyers or financial institution to developer, main contractor, subcontractors and suppliers. A choke in the cash flow in one part of the chain can result in stoppage of the entire project.

c) Roles of consumers

The consumers are the end users. Housing market had always been a 'developer's market' where developers dictate the sale of house i.e. based on 'first come first serve basis'. This happened until 1986 when the glut occured. The reverse situation i.e. from a 'developers market' to a 'buyers market' in the recession allowed the buyers to choose houses of their choice. In this situation, more information should be disseminated to educate buyers so that public interest is protected.

3.5 CONCLUSION

There is no single published document on Malaysian housing policy. The Malaysia Five Year Development Plan specifies macro policy guidelines as well as target within the five yearly period. The housing policy aims to ensure adequate and decent shelter to all Malaysians particularly the Low income population. The following conclusions can be made on the urban management and housing policy in Malaysia.

(a) Based on the Malaysian Constitution, the State Government has greater influence over urban housing development as land is a State matter.

(b) The equity policy expressed in the OPP (Outline Perpective Plan) stressed the eradication of poverty and restructuring of society with the

long term goal of racial unity.

Related to this policy are the Low Cost Housing Policy and Bumiputra privilege in House ownership. Among Malaysia's States, Johor State has the most 'severe' requirements for the private developers i.e. all approved housing estates are required to provide a minimum of 40% Low Cost houses (instead of 30% in other States) and sold at a price of not more than MR$22,000 per unit (instead of $25,000 in other States). There is also a policy requirement where a minimum of 40% of the total housing units must be allocated to Bumiputras and at a price discount of 15% of the listed selling price.

(c) This Low Cost housing policy is unique because the cross subsidy from Non Low cost house buyers to Low Cost house buyers are carried out by developers i.e. built-in in the pricing of Non Low Cost houses. Inexperience and poor management of projects may result in cash flow problems which may ultimately result in project failure. Hence, developers must be experienced and skillful in fund management and pricing.

(d) The Government is receptive to suggestions for improvement in the urban management system for example in adopting the Town and Country Planning Act,1976 (introduction of Structure Plan system) and Local Government Act,1976. Although this improvement does provide a good adminstrative framework, it is still weak in its implementation stage. The British model of Development Plan system itself has weaknesses such as lengthy preparation time and Local plans are not engineering or project orientated to enable development control to be carried out effectively.

(e) The ONE STOP AGENCY approval system for land conversion and subdivision of housing development apparently helped to speed up the

approval system but is in itself not comprehensive enough to screen out non feasible projects. In other words, the present housing approval process is not efficient enough and effectiveness of supply have to be considered as well.

The development control on the size of the project approved is important so that project implementation and control is manageable. In addition, the lack of monitoring works after a housing project is approved made future housing planning and data updating difficult for the Housing Authority.

(f) The philosophy of not controlling the supply and the creation of a perfect market may not benefit the general public as reflected in the abandoned housing problem which becomes more difficult for the Government to solve and revive.

In order to understand the housing estate supply problem, it is important to formulate research design methodology to carry out surveys to evaluate the housing estate development and housing approval system.

NOTES

(1) Malaysia is a constitutional monarchy, her head of state being the King (Yang di Pertuan Agong), one of the Malay Rulers elected for a term of five years by his brother Rulers, who has to act in accordance with Government advice. The Parliament consists of the Senate (Dewan Negara) comprising of 58 members and a House of Representatives (Dewan Rakyat). Elections to the Lower House are held every five years . The Cabinet headed by the Prime Minister consists only of members of the legislature. In the Malay States, the rulers retain their pre independence position except that generally they can no longer act contrary to the advice of the State Executive Council. The non royal Federal States are each headed by the Yang di Pertua Negeri who is federally appointed for four years and act upon the advice of the respective State Executive Councils.

(2) The National Land Code,1965 provides a uniform land legislation governing the land adminstration especially concerning the land conversion and subdivision and land alienation in Peninsular Malaysia. Prior to this legislation, land administration differed very much from one State to another.

(3) Town Planning Standard directives are in the form of a manual produced by the Federal Town and Country Planning department. This manual aims to provide uniform planning standards to be used as design guidelines for all States throughout Malaysia.

(4) The Housing Developers (Control and Licensing) Act,1966 and Housing Regulation Act,1982 are the two main legislations used by the Ministry of Housing and Local Government to regulate the activities of housing developers and also to promote the development of a healthy and efficient housing industry.

(5) The Financial measures are mainly governed by the Ministry of Finance. It controls interest rates in commercial banks and finance companies, set minimum target on banks to provide housing loans especially in the Low and Medium cost houses, exempts Stamp duties for Special Low Cost Housing Programme and subsidises loans for public low cost houses to State Governments and the low income group. The withdrawal from one 's Employee's Provident Fund (EPF) is also allowed by the Ministry i.e. up to a maximum of 40% for Low Cost house buyers and a maximum $20,000 or 20% of purchase price to non Low Cost house buyers.

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CHAPTER 4:

RESEARCH DESIGN AND METHODOLOGY

4.0 INTRODUCTION

After overviewing the housing development in Malaysia, a detailed study on the actual conditions and problems in the mismatch of urban housing supply by using a Case Study is needed. Until today, there is no empirical study on housing estates in Malaysia. The abandoned housing and low achievement of housing building problem at the national level as discussed in Chapter 2 can be better understood using detailed data analysis at the State or local level. It is therefore important to carry out a fieldwork survey using a Case Study to identify the housing development issues.

4.1 DESIGN OF THE RESEARCH

Generally, the research process encompasses three main stages; (1) problem formulation (2) ideal research design and (3) practical research design (Ackoff RL, 1953). In the case of urban problems, good quantitive and qualitive data are required to understand them and researchers should make comparisons between theory and practice(Bracken I,1981)

This research work was initiated in response to the State Housing Authority's request for assistance from the University of Technology Malaysia to study the urban housing market and development problem in Johor. The terms of reference ultimately aim to outline future housing strategies for urban housing development in the State of Johor for the year 2010. The abandoned housing issues provided a good starting point for the research work.

The problem formulation stage was basically as identified by the Local Housing Authority's Terms of Reference (TOR). Based on the above Terms of Reference, data collection at the State level and Local Authorities at all the 8 districts in Johor was carried out to provide a data bank for the State Government. The main tasks were:-

a) initial data collecting and mapping works on housing development. Data management work was carried out to facilitate statistical analysis.

b) background study on housing development in Johor State and at national level were then compiled as references in the research work. Information from several sources including newspaper cuttings was also obtained.

Following from the preliminary findings and data collection, this thesis work will focus on only one of the 8 districts (i.e. Johor Bahru district) of Johor State, to be used as a Case Study so that the study can be more focused and more intensive investigation on residents, developers and professionals' views can be carried out.

4.2 SELECTION OF THE STUDY AREA – JOHOR BAHRU METROPOLITAN AREA

The Johor Bahru Metropolitan Area has a total of 1,140 sq km and has a total population of about 650,000 people in 1990. It is located at the southern tip of Peninsular Malaysia and provides a gateway from the south from the neighbouring nation, Singapore. Figure 4.1 shows the background information on the Study Area and its location at national, regional and local levels. It has regional importance as it is a State capital and a Growth Pole for the southern region .The Study Area was chosen because of the following:

VITAL STATISTICS

Area : 1,140 sq km.
Part of Johor Bahru district.
It consists subdistrict
- Johor Bahru City
- Tebrau
- Kulai/Senai
- Plentong/ Pasir Gudang
- Pulai
- Sedenak

Population : 650,000 people
Local Authorities :
- Johor Bahru Municipality
- Pasir Gudang Local Authority
- Johor Bahru Central Dist Council
- Kulai/ Senai District Council.

REGIONAL CONTEXT

a) Johor Bahru City is the state capital of Johor State. Hence it has administrative and commercial centre.

b) It is one the Growth Poles for the southern region in Peninsular Malaysia.

c) The Economic Growth Triangle of Johor- Batam Is.(Indonesia)-Singapore further accelerates the industrialisation process and tourism industry in Johor.

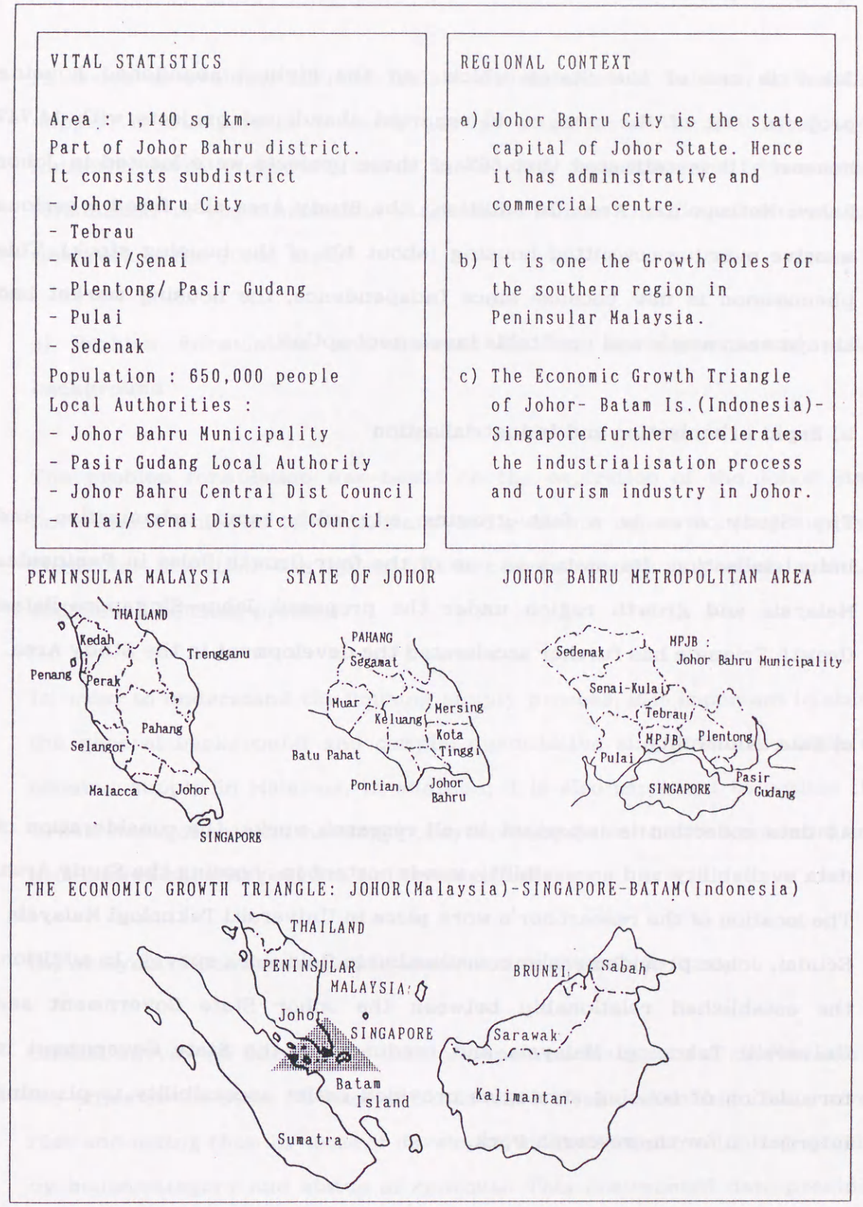


Figure 4.1 The Case Study Area – Johor Bahru Metropolitan Area.

a) Highest percentage of Abandoned housing projects

Johor is one of the States which had the highest abandoned housing projects. Out of the total of 40 reported abandoned projects with 14,747 houses*[1], it is estimated that 60% of these projects were located in Johor Bahru Metropolitan Area. In addition, the Study Area also faced a serious massive overdue committed housing (about 40% of the housing stock). This phenomenon is new because since Independence, the housing market had always been a safe and profitable investment option.

b) Rapid urbanisation and Industrialisation

The Study Area is a fast growing city with rapid urbanisation and industrialisation. Its status as one of the four Growth Poles in Peninsular Malaysia and growth region under the proposed Johor–Singapore–Batam Growth Triangle has further accelerated the development in the Study Area.

c) Data availability

As data collection is important in all research works, the consideration of data availability and accessibility was important in choosing the Study Area. The location of the researcher's work place in Universiti Teknologi Malaysia , Scudai, Johor provided easier coordination in field work survey. In addition, the established relationship between the Johor State Government and Universiti Teknologi Malaysia and readiness of the State Government in formulation of housing strategies provided easier accessibility to planning information for the research work.

4.3 RESEARCH METHODOLOGY

In order to evaluate housing estate development in relation to housing supply, it is important to carry out investigation at the State and Local Authority level. Figure 4.2 shows the overall research work from problem formulation to recommendation stage and outlines the overall survey and fieldwork in the Study area.

a) Problem Formulation and Current Housing development and policy background

The problem formulation was based on the aspiration of the Johor State Government which is to understand and evaluate urban housing supply . Particular attention was given to the current approval process and the abandoned housing problem.

In order to understand the housing supply process, it is important to study the general background and compile quantitative and qualitative data on housing supply in Malaysia. In addition, it is also important to outline the Urban Management and housing policy in Malaysia so that the potential and problems of current practice can be identified.

(b) Analysis of Documented and Fieldwork data from Case Study

Official survey on documented data of approved housing was carried out at the office of the State Director of Lands and Mines by checking all approved files and listing them by name of developer, location, approved housing units by house category and status of approval. This documented data provided the total approved housing stock but not their development status. This completed list of approved housing data was then checked with respective

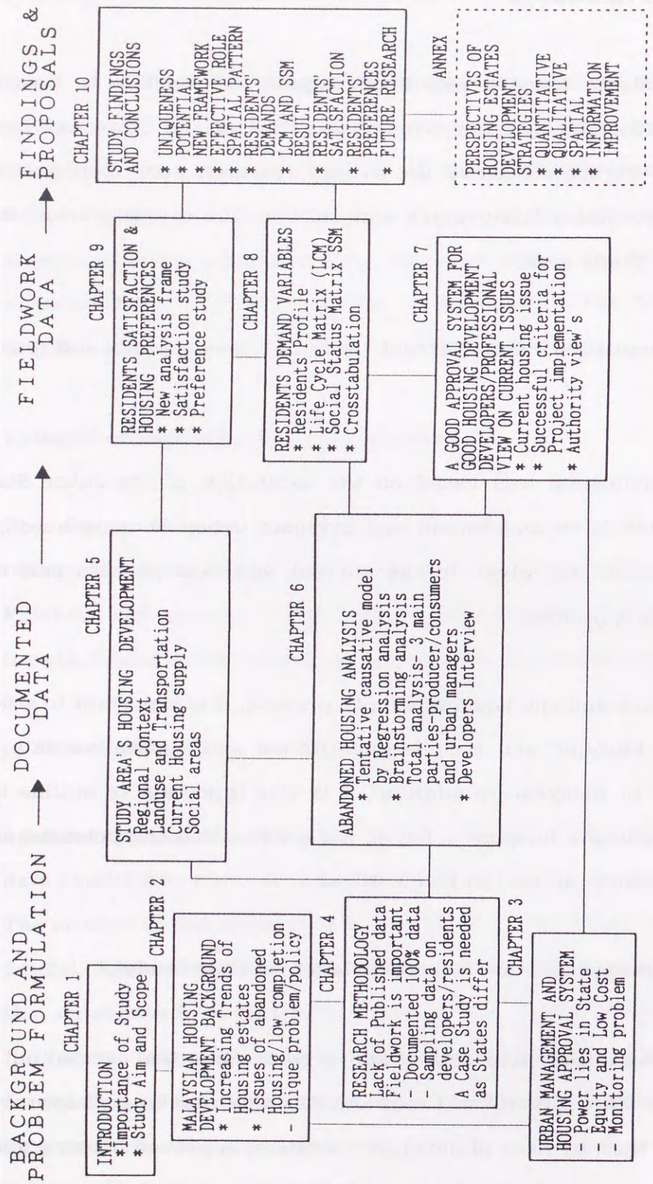


Figure 4.2 Research Flow

Figure 4.2 Research Flow

Local Authorities to ascertain the development status of each individual housing project. From these Local Authority 's offices, total housing stock can be divided into (1) Completed houses with Certificate of Fitness (CFO), (2) Underconstruction (3) Committed pending for development and (4) Abandoned houses[*4]

The use of Housing Stock-Flow concept is useful for the understanding of housing supply system. In most cases, Housing Stock Flow concept is defined as the Stock of completed houses and Flow as underconstruction and vacant houses. However, in Malaysia this concept has to be modified because of the relatively high committed and abandoned stock. The above 4 categories of housing stock (completed, underconstruction, committed and abandoned) can be divided into STOCK (Completed houses) and FLOW (Active Flow = Underconstruction, and Pending Flow = Committed and Abandoned housing). Figure 4.3 shows the Housing-Flow concept used in the analysis of housing supply.

From the above data, analysis on housing supply can be carried out to understand its characteristics and location. Regression analysis on abandoned housing can also be carried out to study its correlation with related parameters. In addition, brainstorming sessions between housing experts and interviews with developers will provide the qualitative description of its causative factors.

This 100% documented survey results also provided a framework for objective sampling of residents in the Study area. In order to understand the housing problems and to formulate housing strategies, data from documented survey is inadequate; fieldwork survey on residents needs, developers and professional views are also equally important.

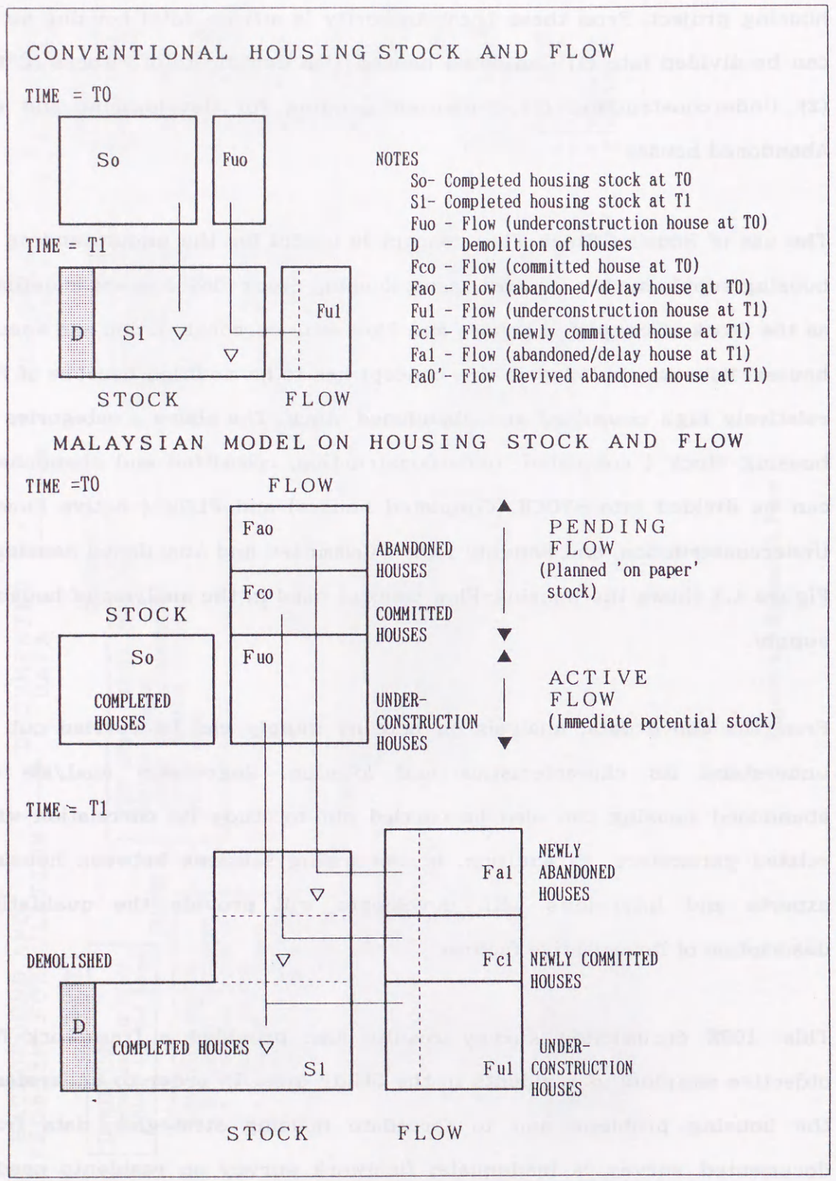


Figure 4.3 Housing Stock-Flow Concept

(c) Findings and Proposals

Findings of the documented data will provide insights into the future urban housing pattern of development, mismatch in housing and tentative causative factors of abandoned housing. The residents survey can provide insights on current residents dissatisfaction and housing preferences in the Study area. Similarly, the developers and professional views on current weaknesses in the housing supply are important to be incorporated in future housing policy planning and housing approval process. The main findings are then incorporated to be used as proposals in terms of quantitative, qualitative, spatial and information improvement components.

4.4 SURVEY DESIGN

Survey design refers to the practical survey work where various types of surveys are to be carried out. Several sources of information were sought. Basically it can be divided into Official Published data (Secondary source) and Field work data (Primary source). (Figure 4.4)

(a) Official Published data (Secondary data)

Published information on housing development was available from topical reports, published books, newspapers, housing journals and Census data.

i) Current issues and public opinion.

There is little research on housing in Malaysia. Hence newspaper information was important as it provided current views on housing problems faced by the public and the Ministry. The housing journal in Malaysia entitled Housing and Property started its circulation in 1976 but apparently stopped publication since 1985. In addition, reference was made to local and

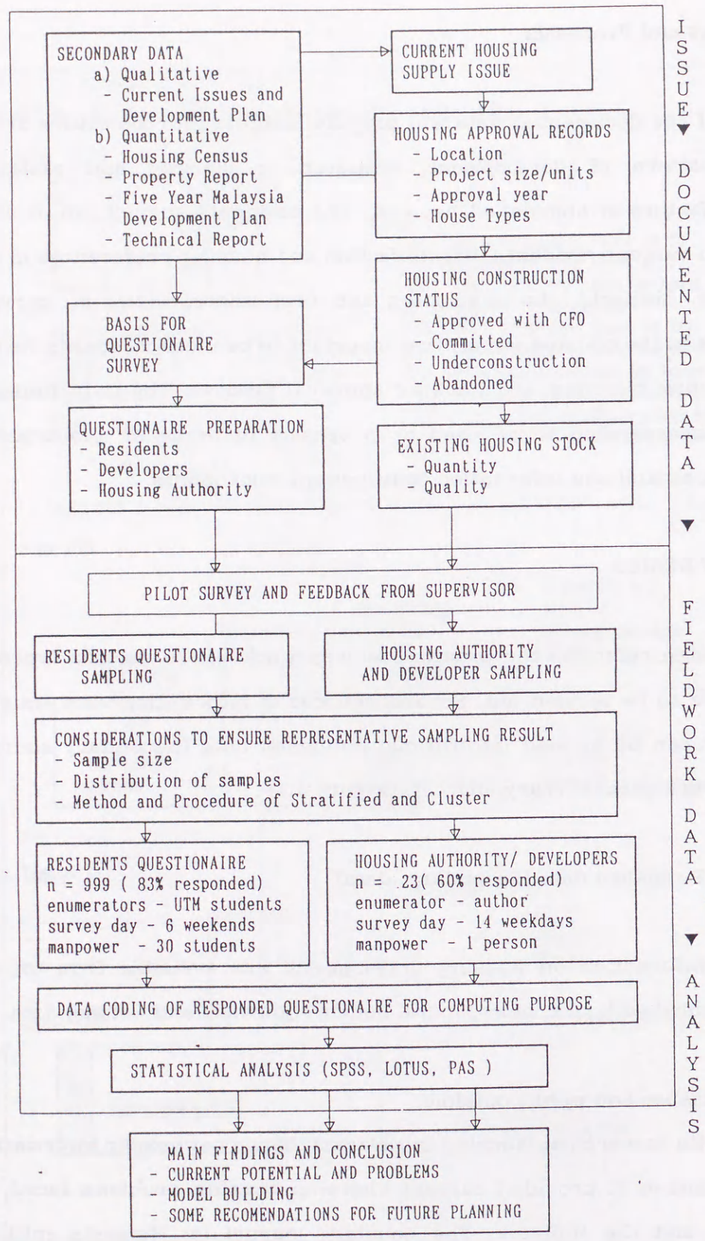


Figure 4.4 Data collection and Survey methodology

international conference papers related to housing planning.

ii) Quantitative Data

The main sources of Quantitative published data were from the General Housing and Population Census Report and Five Year Development Plan Document. The General Population Census and General Census on Housing is published every 10 years by the Department of Statistics whilst the Five Year Development Plan is published every five years by the Prime Minister's Department. The other sources of unpublished quantitative data were from the records of the Local Authority and State departments (e.g. Director of Lands and Mines office, Town and Country Planning Department, State Housing Department, Structure Plan Technical reports).

Analysis on the secondary information helped to redefine the problem formulation and contributed to questionaire preparation for field work survey.

(b) Fieldwork data (Primary Source)

The Primary source of data was the researcher's original or field work data collected through interviews with the respondents or from secondary sources which were later rearranged for the researcher's Study.

The steps involved in collecting the information were :- (i) Current housing characteristics from State offices and Local Authorities (ii) Current housing issues from interview surveys with (a) residents, (b) developers and (c) professionals from private and public sectors.

(i) Current Housing development characteristics and pattern

Due to the lack of detailed housing data in the Study area, data collection of

all approval housing as the base study for the current housing stock was required.

All the housing estates approved by the Housing Authority were compiled from individual project files of the State Director of Lands and Mines office. A total of 208 projects comprising of 230,000 units of houses were tabulated and keyed into the Lotus spreadsheet. Since the current data format on approved houses of the State Government is for the purpose of revenue collection, the data on the status of construction of these projects were not recorded in the office of the Director of Lands and Mines. Another separate office survey on individual Local Authorities was carried out to identify the status of construction of these listed 208 projects. Data keeping in the Local Authority caters mainly for their day to day book keeping functions and not for planning purposes. For instance, houses issued with Certificate of Fitness for Occupation (CFO) were not compiled by project but by month or week. This made data collection very cumbersone as one project may have a CFO application in a different period of the year.

(b) Residents background, satisfaction level and preferences as well as developers, professional views on housing development.

The interview survey was carried out on residents, developers and professionals related to housing industry in July and August 1991.

(i) Household characteristics, Perception and preference

The Residents Survey was not intended for identification of housing problems alone, but also provided information on the socio-economic profile of the population of housing estates. This is important because the available Census data is obsolete and some key variables required were not available in the Census data. A total of 999 samples out of 1200 questionaires attempted

were received. The main contents covered the household characteristics, shopping pattern, income and expenditure pattern and perception of housing environment. A detailed analysis on housing preferences of residents was also being carried out.

(ii) Developers and Professionals' Views on the Current Housing issues

An opinion interview on developers and private and public professionals in the housing industry was carried out based on specific questions geared towards the identification of current housing problems and causes of abandoned housing.

(iii) Brainstorming of experts and Housing Authority

In order to understand the current view of Housing Authority and experts on current housing issues, a systematic brainstorming session was carried out. This provided an overall discussion of housing development and identified possible approaches to study the problem.

Data analysis was carried out with the help of computer.The three main software packages were Statistical Package For Social Science (SPSS), Lotus 123 (Electronic Spreadsheet) and Hideoshi PAS (Statistical Package for micro-computer).

4.5 QUESTIONAIRES INTERVIEW SURVEY ON HOUSING RESIDENTS.

The questionaire sampling method in developing countries like Malaysia can be done effectively only by interview survey. Mail questionaire and telephone will fail to receive a good response from respondents. The sampling exercise in a community with multi-racial, multi-economic strata, different housing categories, different scale of housing scheme and different age of housing scheme in the Case Study all require careful sample

stratification and clusterisation.(Appendix 2 – Residents questionaire form)

(a) Determination of Sample size

The sample size was determined based on 2% of the total housing stock (1,200 samples) and a minimum of 400 samples based on a significant level calculation*2. The total living quarters in the housing estates is 67,000. On the assumption of a 5% vacancy rate, the total occupied living quarters will be about 60,000 units.

(b) Distribution of samples

In order to ensure an effective representative sample from the residents questionaire survey, alternative methods of sampling distribution were explored. Among the possible combinations were:– (figure 4.5)

a) evenly distributed samples from all housing estates.

b) Semi random (spot) sampling from selected housing estates

(i) corridor development sampling

(ii) employment centre based sampling

(iii) distance from the City centre

Based on the criteria of evaluation on problem identification, sampling size and confidence level and field work management, a combination of spot sampling from selected housing estates was more appropriate for the Case Study. In order to identify the target housing estates,' sample spots' were divided into zones based on employment centres located along the main development corridor of Johor Bahru–Pasir Gudang–Kulai.

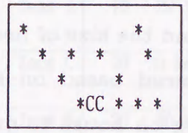
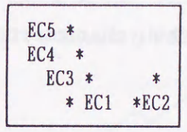
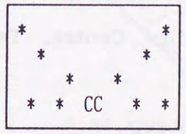
ALTERNATIVE DISTRIBUTION	RATIONALE	MERIT AND DEMERIT
A) EVEN DISTRIBUTION (2 % sample)  * Sample housing estates	Total coverage of all housing estates ensure total representation of residents perception and characteristics.	MERIT i) Easy sampling work DEMERIT i) Field work widely distributed and is difficult to control ii) No focus on criteria of survey objective.
B) SPOT DISTRIBUTION (SEMI RANDOM SAMPLING) (I) Corridor Development  CC - CITY CENTRE	i) This method conforms with existing pattern of housing development. ii) Assumption based on different corridor has different characteristics	MERIT i) Spot distribution is problem solving/ purpose oriented ii) Representative sample of respondent is possible if the differences of the characteristics can be identified. The main differences identified are corridor development pattern and distinct employment centres in the Study Area. iii) Spot distribution allows bigger sample size per housing estate iv) It also facilitates field work as the sampling area is more focused.
(II) Employment Centres (EC) 	5 Employment centres have different service,manufacture, education, workshop, dormitory town.	
III) Distance from City Centre  CC - CITY CENTRE	Distance from city centre will affect amenity, house price and transportation cost and hence has impact on residents characteristics.	
EVALUATION Based on the merit and demerit of both alternatives, spot sampling method is adopted in the survey. The survey combines the 3 above criteria (corridor,employment centre, and distance from city Centre) to form survey zone.		

Figure 4.5 Alternative Method of sample distribution

(c) Sampling Method

Sampling methods were based on stratified and cluster methods. Samples were stratified by geographical zones. The zones were based on service and employment centres located along the development corridor as well as distance from the city centre.

In each zone, the selection of housing estates was based on 2 levels: city's level (size, age and construction year of housing scheme) and housing estate's level (house category and ethnic groups). A total of 35 housing estates were clustered based on age of construction and the size of housing estates. Respondents were then systematically clustered based on house category in each housing estate and random sampling on house to ensure that the ethnic groups were representative.

Figure 4.6 shows the distribution of survey zones and their characteristics.

(i) Selection of Zone

The Study area was divided into 5 main zones. The criteria used in the selection was based on housing distribution, employment centre and distance from the city centre. The five zones were : City Centre, Tampoi, Plentong/Pasir Gudang, Scudai, Senai and Kulai.

(ii) Selection of housing estate

A total of 35 housing estates were chosen from a total of 208 housing estates. The selection of housing estates was based on zone (distance from city centre),project size and project approved year.

(iii) Selection of respondents

After identifying the housing estates, field workers divided the housing

CHARACTERISTICS OF THE SURVEY ZONES

	Distance from City Centre	Service Centre (houses)	Function of the Service centre	Sample size
Zone A	0 to 10 km	Johor Bahru 15,000	Administrative and Commercial	233
Zone B	10 - 20 km	Tampoi 10,000	New Town/dormitory industrial estate	101
Zone C	20 -30 km (NW)	Scudai 17,000	Small scale ind, University	187
Zone D	20 - 30 km (NE)	Pasir Gudang/ Plentong 20,000	Heavy industry Port/ new town	395
Zone E	30 - 40 km (NW)	Kulai/ Senai 6,000	Workshop area Airport.	83

DISTRIBUTION OF THE SAMPLED HOUSING ESTATES

Figure 4.6 Survey zones and their characteristics

estates into sub-areas based on house categories : Low Cost, Medium Cost and High Cost housing units. A proportional number of questionaire interviews were then conducted on the sub areas. The Random number survey technique was used in the survey to ensure that respondents from various ethnic groups were interviewed.

(d) Improvement in the effectiveness of survey result

In order to improve the effectiveness of survey result in the Case Study Area specifically and in Malaysia generally, there were several considerations.

(1) field work by questionaire interview with official letter from the University or Government Authority .

(2) The survey day had to be on weekends to ensure that the head of household was at home. The absence of head of household usually resulted in non response from the family members for security reasons. In the case of the Study Area, weekends for the public sector was on Thursday and Friday and for the private sector; Saturdays and Sundays.

(3) University students with experience in questionaire survey were engaged in the field work. In addition, students from three main ethnic groups were intentionally chosen to facilitate cooperation between respondents and interviewers.

4.6 QUESTIONAIRE INTERVIEW WITH DEVELOPERS AND PROFESSIONALS

Formal and informal discussions were carried out with developers and professionals from private and public offices. A short questionaire form (see Appendix 3) was used in the interview to ensure systematic discussion.

However, it was found that better results were achieved through more relaxed and free talks on housing issues and the abandoned housing problem.

This fieldwork interview with developers and professionals was carried out in July/August 1991. The listing of developers and professionals was obtained from the Johor Housing Developers Association (JHDA) and the telephone directory.

This interview survey attempted to seek views from the developers and professionals of the private and public sectors on 3 main areas:-

a) Evaluation of current housing estate development issues

b) Ranking of criteria for successful project implementation

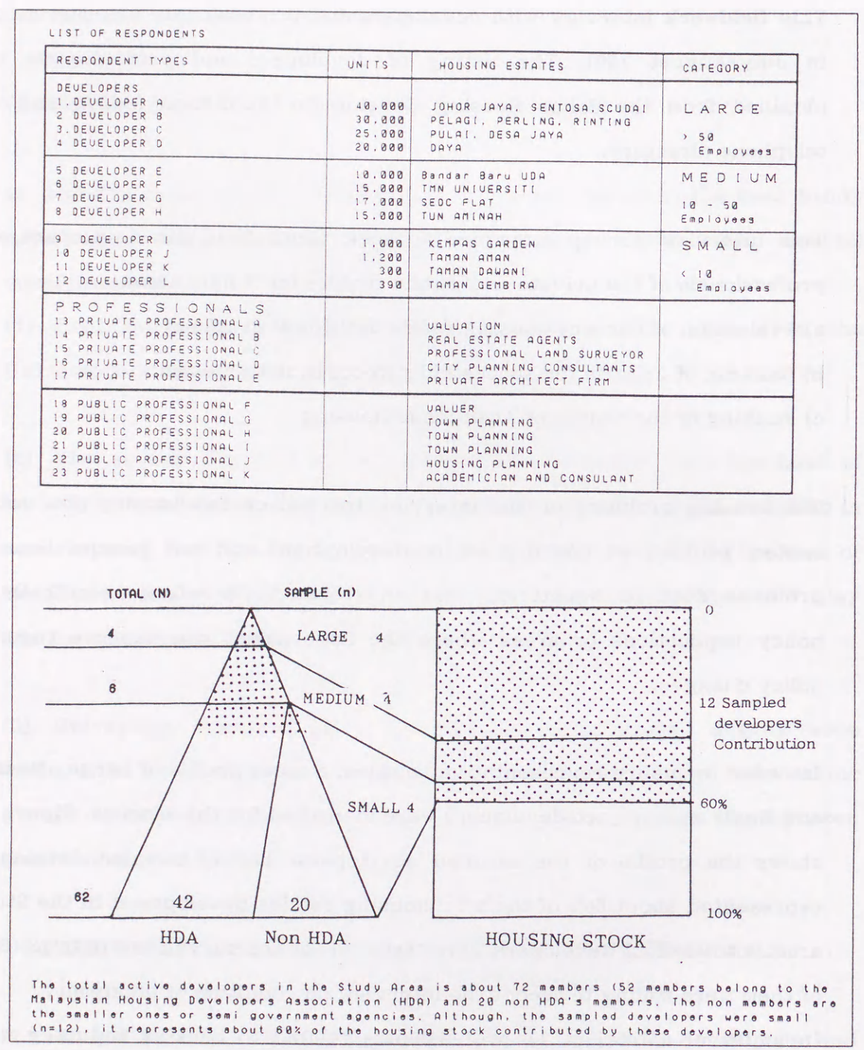
c) Ranking of the causes of Abandoned Housing

The housing problems in this interview focused on the housing production system problem in housing estate development and not general housing problems such as squatters, slum and tenancy. It refers specifically to policy implications or areas where the Government can improve through policy changes.

In order to ensure representative samples, a cross profile of Large , Medium and Small size project developers were identified for the samples. Figure 4.7 shows the profile of the sampled developers. The 12 sampled developers represented about 60% of the total housing estates development in the Study area. A total of 23 developers were targeted for the survey but only 12 (60%) of them were willing to accept the interview on condition of anonymity.
In addition, a total of 11 professionals related to housing industry were interviewed ; five from the private sector and six from the public sector.

LIST OF RESPONDENTS

RESPONDENT TYPES	UNITS	HOUSING ESTATES	CATEGORY
DEVELOPERS			
1. DEVELOPER A	40.000	JOHOR JAYA, SENTOSA, SCUDAI	LARGE
2. DEVELOPER B	30.000	PELAGI, PERLING, RINTING	
3. DEVELOPER C	25.000	PULAI, DESA JAYA	> 50
4 DEVELOPER D	20.000	DAYA	Employees
5 DEVELOPER E	10.000	Bandar Baru UDA	MEDIUM
6 DEVELOPER F	15.000	TMN UNIVERSITI	
7 DEVELOPER G	17.000	SEDC FLAT	10 - 50
8 DEVELOPER H	15.000	TUN AMINAH	Employees
9 DEVELOPER I	1.000	KEMPAS GARDEN	SMALL
10 DEVELOPER J	1.200	TAMAN AMAN	
11 DEVELOPER K	300	TAMAN DAWANI	< 10
12 DEVELOPER L	390	TAMAN GEMBIRA	Employees
PROFESSIONALS			
13 PRIVATE PROFESSIONAL A		VALUATION	
14 PRIVATE PROFESSIONAL B		REAL ESTATE AGENTS	
15 PRIVATE PROFESSIONAL C		PROFESSIONAL LAND SURVEYOR	
16 PRIVATE PROFESSIONAL D		CITY PLANNING CONSULTANTS	
17 PRIVATE PROFESSIONAL E		PRIVATE ARCHITECT FIRM	
18 PUBLIC PROFESSIONAL F		VALUER	
19 PUBLIC PROFESSIONAL G		TOWN PLANNING	
20 PUBLIC PROFESSIONAL H		TOWN PLANNING	
21 PUBLIC PROFESSIONAL I		TOWN PLANNING	
22 PUBLIC PROFESSIONAL J		HOUSING PLANNING	
23 PUBLIC PROFESSIONAL K		ACADEMICIAN AND CONSULANT	



The total active developers in the Study Area is about 72 members (52 members belong to the Malaysian Housing Developers Association (HDA) and 20 non HDA's members. The non members are the smaller ones or semi government agencies. Although, the sampled developers were small (n=12), it represents about 60% of the housing stock contributed by these developers.

Figure 4.7 Profile of sampled housing developers and professionals

The reasons for the rejection of interview by some private sector respondents were that:-

a) they were not willing to express views that may be seen to be 'against the Government Policy' and feared antagonising the Housing Authority.

b) they were very busy (especially the smaller developers or company) as these companies were short of staff.

Inspite of the relatively small sample size, the findings were important because:-

(a) they represented the opinions from a cross profile of parties or agencies in housing estate development.

(b) these groups represented about 60% of housing estate development in the Study Area.

4.7 BRAINSTROMING SESSION WITH HOUSING EXPERTS AND HOUSING AUTHORITY

Apart from informal discussions, a brainstorming session among experts on Housing and with the Director of Land and Mines was also being carried out to formulate the housing issues in the Study area. Special attention was given to the issue of abandoned housing and data collection for the State Government.

Due to the lack of literature on abandoned housing and estate development in Malaysia, the brainstorming technique among experts in housing industry was used to formulate the problem issues. The brainstorming technique is a systematic judgemental method in forecasting and problem formulation which involves obtaining the opinions of a panel of experts in the subject through a brainstorming session.

It is easier to solve problem with solutions we have used previously (Maridakis 1987).*2 In the case where a new problem emerged and it is difficult to use or refer to any previous case, we need to brainstorm out possible consequences and causes to this problem. Hence this is one of the main reasons this judgement method was adopted in the analysis. In this study, the panel of experts comprised the Physical town planner, quantity surveyor, property appraiser, architect and the Director of Lands and Mines.

The reliability of this method depends on the selection of judges. Hence, in this exercise, related built environment professionals with more than 3 years experience in the industry were selected in the panel. In addition, these professionals consisted of academicians and consultants in the housing industry to ensure that their views were impartial and they had no vested interest or biasness in judgment. Besides these people, the Director of Lands and Mines, whose office functions as the 'gatekeeper' to housing approval information and was present at the brain storming exercise, played key roles in providing main issues faced by the office in approving housing projects.

4.8 THESIS REPORT STRUCTURE

The thesis writing will be divided into 3 main parts: (Figure 4.8)

a) PART ONE (Introduction)

- Background of the Study

b) PART TWO (Case Study)

- Problems and Potential of Housing Estate Development and Planning

c) PART THREE (Findings and Conclusion)

d) ANNEX - Perspectives of Policy Strategies and Conclusion

Part One consists of four chapters. Chapter One describes the purpose and

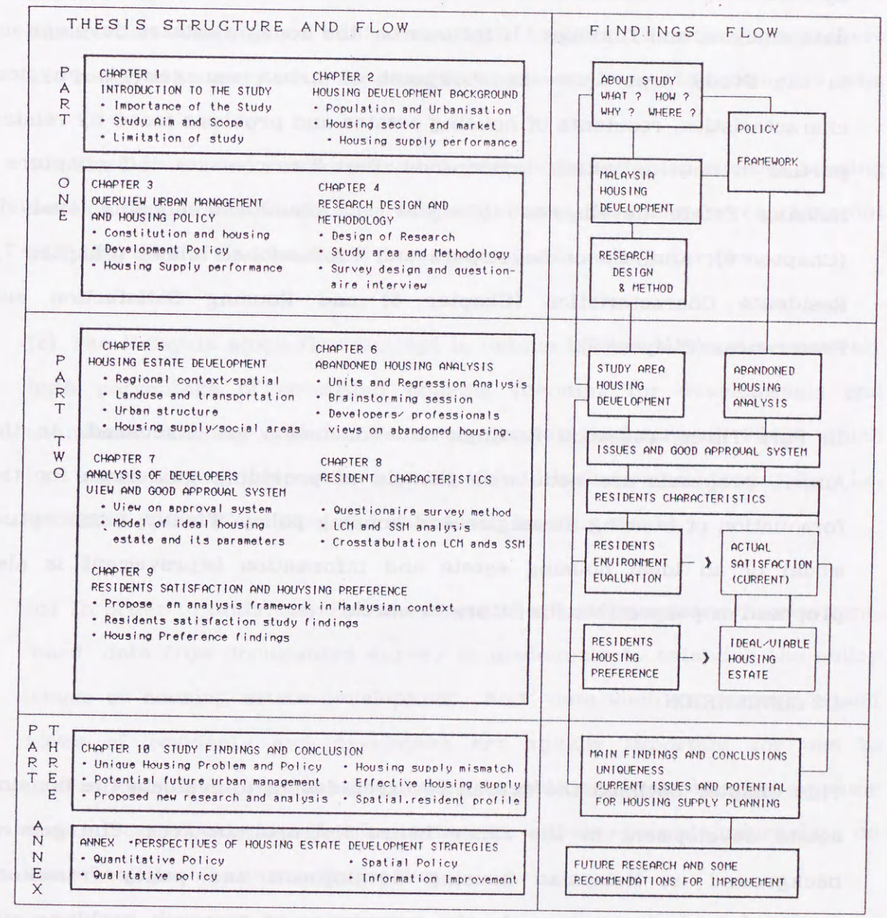


Figure 4.8 Thesis Report Structure and Flow

scope of the Study. Chapter Two describes the background on Malaysian housing development. Chapter Three describes the current urban management and housing policy. Chapter Four describes the research design and methodology adopted in the Study. The source of data used is based on published data, journal, official reports and newspapers.

In Part Two, a Case Study on Johor Bahru Metropolitan Area is used in the data analysis and findings. It focuses on the housing estates development in the Study Area from the viewpoint of urban management, physical characteristics, residents of housing estates and problems faced by related parties in housing estate development. Part Two consists of 5 chapters ; Housing Estate development (Chapter 5), Abandoned Housing Analysis (Chapter 6), Analysis of Developers and Professionals views (Chapter 7), Residents Characteristics (Chapter 8) and Housing Satisfaction and Preferences (Chapter 9).

In Part Three, research findings and conclusion are discussed. In the Annex, proposals are made with the aim of providing guidelines for the formulation of housing strategies and housing policy. Finally, a conceptual model of an ideal housing estate and information improvement is also proposed as perpectives for future research.

4.9 CONCLUSION

This Chapter outlined the overall research design to evaluate the housing estate development in the Johor Bahru Metropolitan Area. The general background on Malaysian housing development and policy framework provided basic input towards the formulation of research problems and survey flow. The following conclusion can be drawn :

(a) In the present housing approval system, the housing data bank is not integrated and thus it is not possible to obtain a housing stock–flow data from one source. The State Authority has data on approved housing (right from the committed stage) but no information on the approved construction stages after that. The Local Authority should have data on construction and completed houses so that the Local Authority can carry out inspections to ensure that buildings are built according to byelaws. Therefore, researchers are required to carry out 2 separate documented surveys to obtain this data.

(b) The Documented survey provided basic information on current housing development in the Study Area and established the basis for carrying out sampling data of residents and developers questionaire interview.

(c) The Malaysia stock–flow concept is unique in that there is a relatively high percentage of committed housing (pending for development) and abandoned housing projects. Hence the conventional term of FLOW which had meant underconstruction housing should include a new terminology i.e. 'PENDING FLOW' (Committed and abandoned housing stock).

(d) In order to understand and evaluate the housing estates development, 'hard' data from documented survey is inadequate to establish the policy issues of housing estate development. 'Soft' data such as perception and views of residents and developers are equally important for one to understand the current housing issues. In addition, brainstorming sessions among local experts and Housing Authority will also provide information on the overall problem in the Study Area.

NOTES

(1) This figure is obtained from the Ministry of Housing and Local Government and it is based on reported affected buyers. This figure is far smaller than the actual because some projects were not reported. There is a different abandoned housing figure if we compared it with the State housing data because the State Government's definition of abandoned housing includes unbuilt approved houses after 5 years from the approval year.

Stoppage of project work at site may not be a good definition of abandoned housing although it may be clear that the project has a tendency to be abandoned. Most buyers refused to report because court cases are tedious and sometimes negotiation between buyers and developers enable the project to be continued by the developer.

(2) Calculation of sample size
(a) 2% of total housing stock
2% x 60,000 = 1,200 samples
(b) Statistical (confidence level of 95%)
n = N/ (1 + Ne^2)
= 60,000/ (1 + 60,000*0.05^2)
= 397 samples

(3) Quoting from Makridakis, Spyros G (1987) in his book Handbook for Forecasting , 'Researcher often find problems because they have solutions they can use. This has been refered to as the 'law of hammer'Give a child a hammer, and he will find a lot of things that need pounding.'

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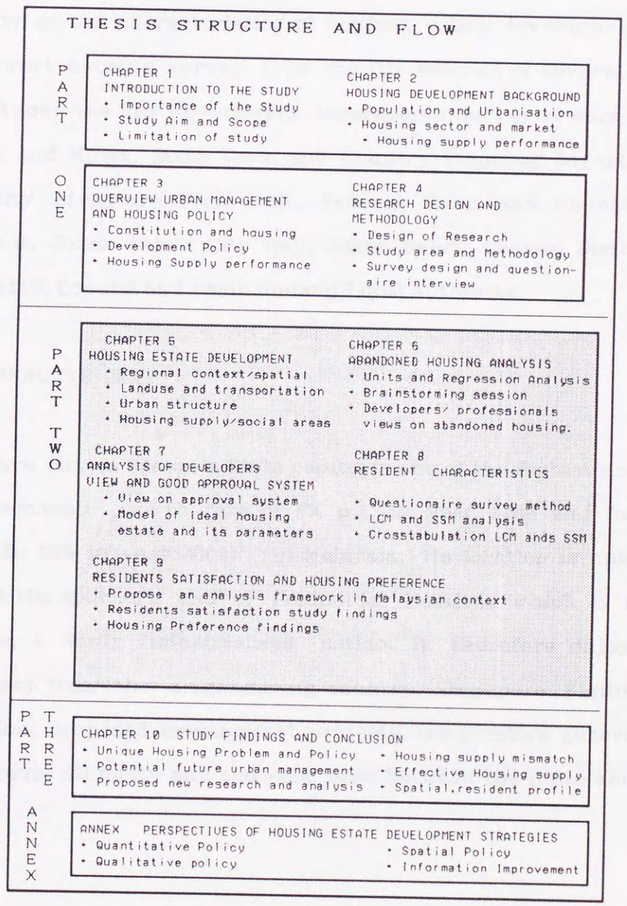
PART TWO

CASE STUDY -JOHOR BAHRU METROPOLITAN AREA

PART TWO : ANALYSIS OF HOUSING ESTATES DEVELOPMENT AND RESIDENTS USING THE JOHOR BAHRU METROPOLITAN AREA AS CASE STUDY.

Part Two consists of five main chapters ; Study Area background and Housing estates development characteristics (Chapter 5), Abandoned Housing (Chapter 6), Analysis of Developers views on current Housing issues and factors of good housing development (Chapter 7), Housing estates Residents characteristics (Chapter 8), Residents Satisfaction and Housing Preference (Chapter 9). The analysis aims to define and evaluate housing estate development and identify factors of good approval system for good housing development in the Study Area.



CHAPTER 5:

HOUSING ESTATES DEVELOPMENT IN THE STUDY AREA

5.0 INTRODUCTION

Chapter Five outlines the general background and the characteristics of housing estate development in the Study Area. The general background information was from newspapers, Housing Journals, the Johor Bahru-Plentong-Pasir Gudang Structure Plan Report, Population and Housing Census 1970 and 1980, and the Malaysia Five Year Development Plan.

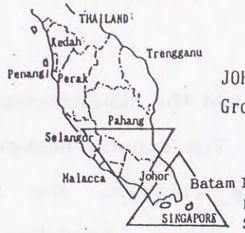
The Study on the characteristics of housing estate development was based on field work housing survey from the file records of several Government offices. Among the key Government departments surveyed were the Director of Lands and Mines, State Town and Country Planning Department, Johor Bahru City Structure Plan Unit, Federal Town and Country Planning Department, Johor Bahru City Hall, Johor Bahru Central District Council, Kulai District Council and Pasir Gudang Local Authority.

5.1 REGIONAL CONTEXT

Johor Bahru City as Johore's State capital is one of the fastest growing cities (annual economic growth rate of 7% p.a. in year 1989 and forecasted to increase to 12% in year 2005)*[1] in Malaysia. Its location is unique as it is located at the southern end of Peninsular Malaysia which is adjacent to Singapore, a Newly Industrialised nation. It therefore enjoys overspill development from the neighbouring country, Singapore. Figure 5.1 shows the location, proposed development projects, comparative general statistics on age group, ethnicity and economic base between the State and the Study Area.

LOCATION OF STUDY AREA

Peninsular Malaysia

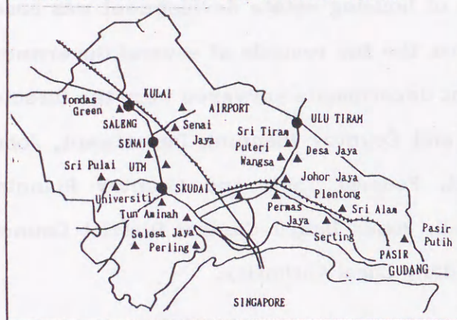


JOHOR PAHANG MALACCA
Growth Triangle

ECONOMIC GROWTH TRIANGLE
Singapore-Johor Batam Island

State of Johor

DISTRIBUTION OF SOME MAJOR HOUSING ESTATES IN JOHOR BAHRU METROPOLITAN AREA



MAJOR HOUSING ESTATES

1970's	Kim Teng Park (63 units)	- City (Zone A)
	Century Graden (200 units	- City (Zone A)
	Majidee Park (40 units)	- City (Zone A)
	Nong Chik (20 units)	- City (Zone A)
Early 80's	T Sentosa (2000 units)	- City (Zone A)
	T Pelangi (3000 units)	- City (Zone A)
	T Tebrau (1000 units)	- City (Zone A)
	T Aminah (2000 units)	- Scudai(Zone C)
Mid 1980's	Permas Jaya (1000 units)	- Plentong(Zone D)
	Kota Putri (2000 units)	- Plentong(Zone D)
	Pasir Putih(1000 units)	- Plentong(Zone D)
	Taman UDA (1000 units)	- Tampoi(Zone B)
	Taman Perling (2000 units)	- Scudai(Zone C)
	Taman University(1500 units)	- Scudai(Zone D)
	T Johor Jaya (3000 units)	- Plentong(Zone D)
	T Desa Jaya (1000 units)	- Plentong(Zone D)

BASIC INDICATORS

Johor State			Johor Bahru Metropolitan
Population	- 2.15 million(1990)		750,000 (1990)
Age Structure	-(0-14yrs)	- 37.7%	40%
	-(15-64yrs)	- 58.7%	58%
	-(65 and more)	- 3.6%	2%
Race	Malay	- 54.8%	50.7%
	Chinese	- 38.4%	39.7%
	Indian	- 6.5%	9.6%
Economy base	Primary	- (53.2%)	22.5%
	Manufacturing	(14.7%)	35.8%
	Services	(22.1%)	42.5%
Total Area	- 18,986 sq km		1,142.6 sq km
Living quarters			
Total			130,260 (1990 est)
Housing estate			66,955 (1989)
Individual urban			19,760
Rural (estate/indiv)			34,145
Squatters			9,400 (1983)

REGIONAL CONTEXT

-Johor Bahru is one of the 6 Growth poles in Malaysia. It is a centre for southern region.
-Part of the Economic Growth Triangle of Singapore-Johor- Batam Island.

RECENT PROPOSED PROJECTS

-Proposed North South Expressway 1993
-Proposed Second Causeway 1994
-Second Johor Port 1995
-Ferry Service Pasir Gudang to Batam Island/ Singapore
-Johor Business Centre (1997)
-Proposed large golf courses (total 12 from 1990-92)

Figure 5.1 The Study Area

The recently proposed Growth Triangle between Johor (Malaysia) - Batam (Indonesia) and Singapore established a framework for inter-governmental cooperation to attract foreign investment to this region. This joint venture will help to promote trade, tourism and industrial development in the region. (The Straits Times July 2, 1991). In this cooperation, Singapore will provide the financial and high technology expertise and tap cheap land and labour in Batam and Johor for industrial development. The scenic and natural resort of Johor and Batam Island will cater for the local and foreign tourists in Singapore. The framework of cooperation focuses primarily on 'Private-sector led' type with Governments coordinating their investments, immigration and other plans pragmatically to adjust to the requirements of the market. This Economic Growth Triangle is aimed at the synergy of development in this region and consequently has positive externalities to the economic growth of this region.

Johor has also initiated another pact with the State of Malacca and Pahang to encourage industrial, agriculture, tourism growth and social development. (Business Times August 10, 1991) Each State will specialise in a certain industrial sector based on the State's comparative advantage. In addition, the intra-state triangle will also be helping each other solve problems such as water supply and labour shortage.

This rapid growth and industrialisation has created a great demand for commercial and industrial land along the prime development area especially land along the corridor of Johor Bahru-Senai-Pasir Gudang. Presently, this great demand is also felt in Johor Bahru city especially from Singaporean investors who want to set up branch offices in Johor Bahru. Current major projects are North-South Expressway (1993), Second Causeway (1994), Second Johor Port (1995), Gelang Patah New Township (not fixed yet), Johor Business Centre-waterfront project (1997) and several large golf courses.

The economic base of the city has a fairly high percentage of services (42.5%) and manufacturing sector (35%) compared to Johor State (22.1% services and 14.7% manufacturing). The Study Area will have a high potential of growth because the relatively high percentage of active population group (58% of 15 to 64 years old) can support the growing manufacturing and service sector in the Study Area.

5.2 SPATIAL HIERARCHY OF HOUSING ESTATES DEVELOPMENT.

The analysis of housing estate development can be divided into 3 main common spatial hierarchies ; the urban/ district, neighbourhood and building level. Figure 5.2 shows the spatial hierarchy levels of housing estates.

At the urban level, housing estates are distributed along the main corridor of development following the main roads. Presently, the main roads are the main access in the Study Area. Rail services play a minor role in the intra cities public transportation. Like most cities, Johor Bahru grows radially out from the city centre to the fringe areas and smaller and older housing estates are found in the city centre while the newer and larger ones are located at the fringe. Recently pocket or infilled development of small exclusive projects were carried out in the inner city.

At the neighbourhood level, each housing estate is designed fairly closely with Perry's concept of neighbourhood system where a school, surau (Muslim prayers place smaller in size than mosque) is used as the centre. Other social facilities such as community hall, open space, shops and postal service are provided as specified as planning standards when approving any housing projects of more than 50 units. All housing projects are planned with mixed

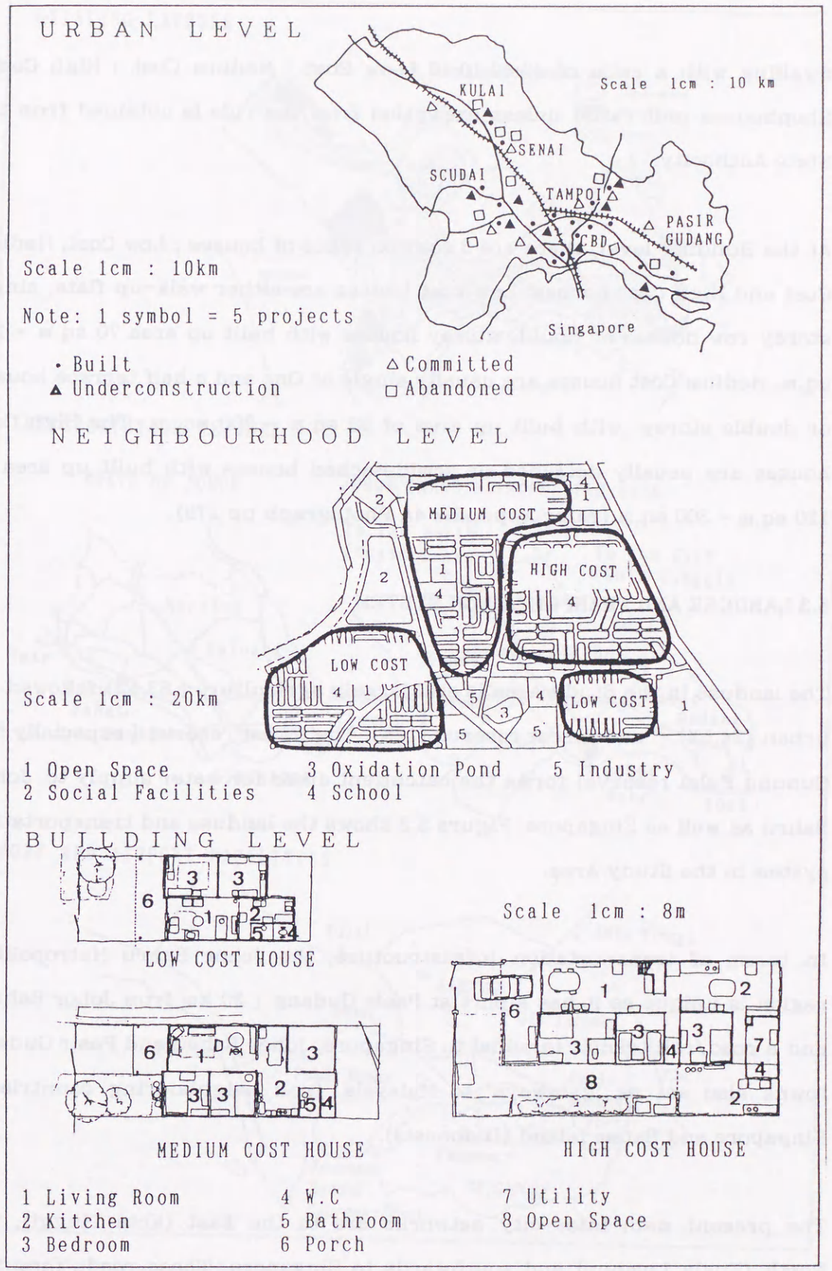


Figure 5.2 Spatial hierarchy of housing estates

dwelling with a ratio of 40:40:10:10 (Low Cost : Medium Cost : High Cost : Shophouses unit ratio) unless exemption from the rule is obtained from the State Authority.

At the Building level, there are 3 common types of houses ; Low Cost, Medium Cost and High Cost houses. Low cost houses are either walk-up flats, single storey row houses or double storey houses with built up area 70 sq.m – 100 sq.m. Medium Cost houses are usually single or One and a half terrace houses or double storey with built up area of 90 sq.m – 200 sq. m. The High Cost houses are usually detached or semidetached houses with built up area of 120 sq.m – 300 sq.m (refer Appendix 4A Photograph pp 279).

5.3 LANDUSE AND TRANPORTATION SYSTEM

The landuse in the Study Area is still largely agriculture (63.5%) followed by urban (24.5%)*2 and forest reserve (12%). The forest reserve (especially the Gunung Pulai reserve) forms the catchment areas for water supply to Johor Bahru as well as Singapore. Figure 5.3 shows the landuse and transportation system in the Study Area.

In terms of transportation infrastructure, the Johor Bahru Metropolitan region is unique as it has a port at Pasir Gudang (20 km from Johor Bahru) and a road/rail transit terminal to Singapore. Johor Bahru and Pasir Gudang towns also act as 'gateways' to Malaysia from neighbouring countries ; Singapore and Batam Island (Indonesia).

The present main inter-city networks are to the East (Kota Tinggi), the North (Kuala Lumpur) and southwards to Singapore. These roads form the main arterial access to and from this region. The intra transportation networking in those major centres (namely Pasir Gudang, Kulai, Masai, Senai,

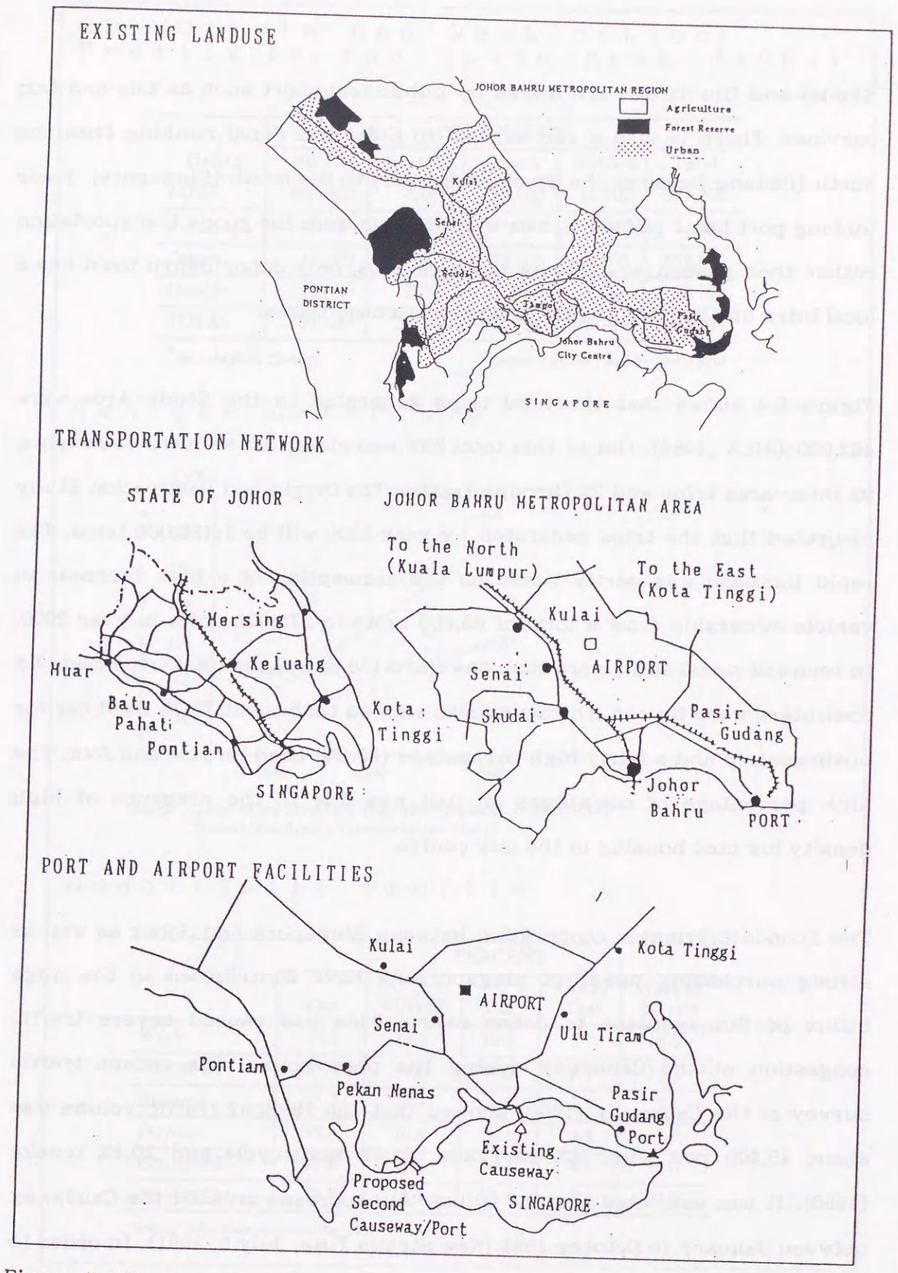


Figure 5.3 Transportation and Landuse

Skudai and Ulu Tiram) are linked by public transport such as bus and taxi services. There is also a rail service to Kulai and Senai running from the North (Padang Besar at the Thailand border) to the south (Singapore). Pasir Gudang port has a rail service as well which is more for goods transportation rather than passengers. Among these centres, only Johor Bahru town has a local intra bus service due to its larger catchment area.

Figure 5.4 shows that the total trips generated in the Study Area were 462,000 (JICA ,1984). Out of this total 89% was classified as intra-area trips, 9% inter-area trips and 2% through traffic. The Origin and Destination Study projected that the trips generated by year 2000 will be 1,425,000 trips. The rapid increase was partly based on the assumption of a high increase in vehicle ownership from a total of 88,000 units to 273,000 units in year 2000. In terms of modal split, more than one third (38.8%) of the total trips made by commuters were by car. The Study also showed that about 73.7% used car for business trip and a fairly high percentage (20.9%) used bicycle and foot. The high percentage of commuters on foot was due to the presence of high density low cost housing in the city centre.

The Economic Triangle cooperation between Singapore and Johor as well as strong purchasing power of Singaporeans have contributed to the huge influx of Singaporeans to Johor Bahru. This has caused severe traffic congestion at the Causeway during the peak hours. The recent traffic survey at the Causeway (1990) showed that the 16-Hour traffic volume was about 49,500 pcu with 56% car/vans, 23.9% motorcycle and 20.1% trucks (1990). It was estimated that 9.8 million Singaporeans crossed the Causeway between January to October 1991 (New Straits Time, July 5, 1991). In order to reduce congestion at the Causeway, the Proposed Second Link bridging Singapore and Johor Bahru has been finalised. The proposed link would be built at the west coast between Gelang Patah (Johor) and Jurong(Singapore)

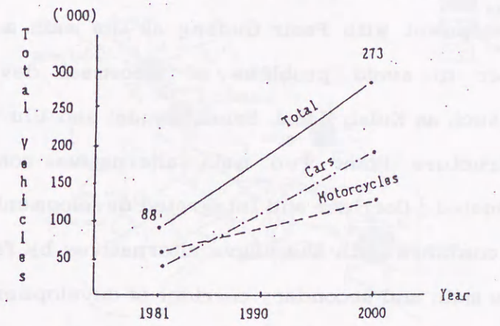
OD (Origin and Destination) Profile in the Study Area (1984)

Origin	DESTINATION				
	MPJB	Plentong	Others	Outside	Total
MPJB	266,900	8,000	10,400	11,800	297,100
Plentong*	8,000	19,800	2,400	2,000	32,200
Others	10,500	2,500	83,100	6,500	102,600
Outside	12,000	2,700	7,000	8,400	30,100
TOTAL	297,400	33,000	102,900	28,700	462,000

* include Pasir Gudang

Source: Structure Plan Johor Bahru 1984

Vehicle Ownership



Source : Johor Bahru Structure Plan 1984 (Japanese International Cooperation Agency Transportation Study)

Modal Split Profile

	PERCENT				
	Car	M/cycle	Bus	Van or Taxi	Walk or Bicycle
Work	14.1	24.4	10.8	5.7	18.0
Education	15.4	4.6	44.5	2.1	33.4
Business	73.7	17.3	1.5	5.1	2.4
Personal	55.8	20.8	6.1	3.4	13.9
Household	33.8	18.4	20.1	4.1	23.6
All Purpose	38.8	18.1	18.1	4.1	20.9

*Source: Johor Bahru Structure Plan 1984

Figure 5.4 Transportation data

(The Star, October 23 1989). A new port at Gelang Patah is also proposed to cater for the future demand for port facilities at the southern region of Peninsular Malaysia.

5.4 PROPOSED URBAN STRUCTURE IN THE JOHOR BAHRU STRUCTURE PLAN (1986)

Based on the Structure Plan Policy (1986), the spatial development planning policy to guide Johor Bahru city as a southern Growth Pole, Johor Bahru will have a twin city development with Pasir Gudang as the main magnet for development. In order to avoid problems of piecemeal development, decentralised centres such as Kulai, Masai, Senai, Skudai and Ulu Tiram was proposed in the Structure Plan. Two main alternative concepts of development were evaluated ; Corridor and Integrated development concept. The selected concept combines both the above alternatives by facilitating development within the main and secondary corridor of development. Figure 5.5 shows the proposed concept of development in the Johor Bahru Structure Plan.

Committed development forming the urban nodes with planned neighbourhoods with population of 8,000 to 10,000, approved along the development corridor will form the link between centres. Consequently, a series of these multi-foci urban centres were planned with interspers of green belt in the form of ribbon development to prevent urban sprawl and to optimise the utility and infrastructure facilities. (for example road, sewerage, telecommunication, water and electric supply for the Johor Bahru Metropolitan Area).

The Structure Plan policy document also classified all lands within 805m (40 chains) from the middle of the roads along the major corridors as

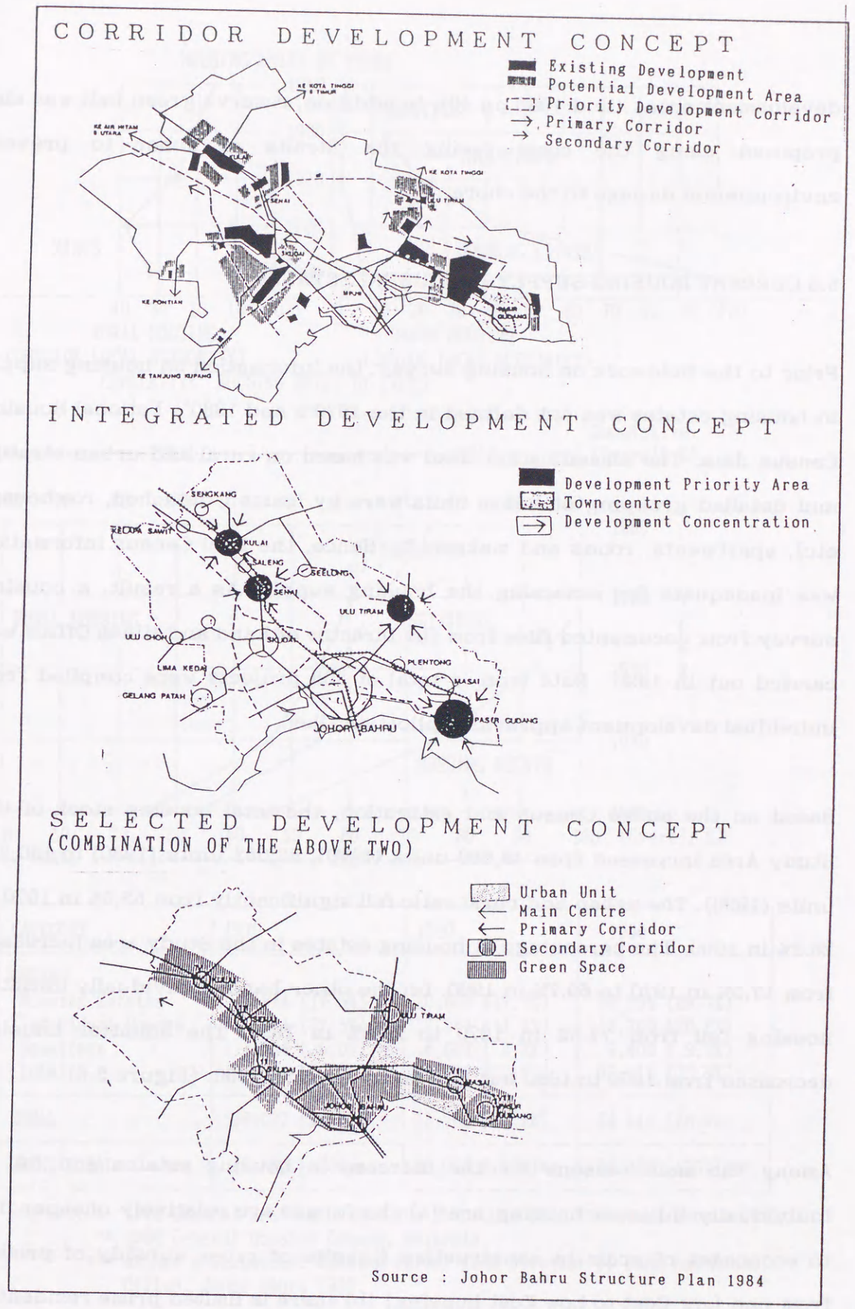


Figure 5.5 Urban Structure proposed in the Structure Plan

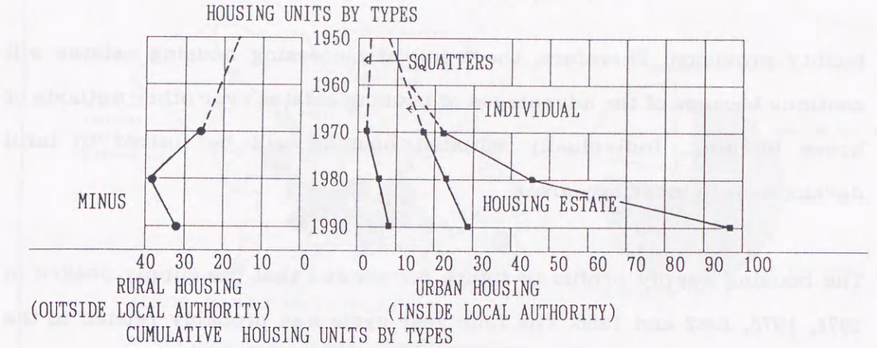
development areas (ibid 1986 pp 40). In addition, reserve green belt was also proposed along the coast facing the Straits of Johor to prevent environmental damage to the shore.

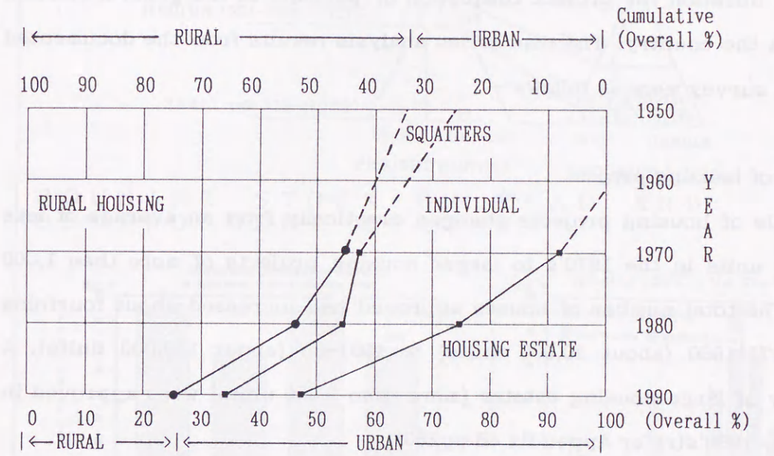
5.5 CURRENT HOUSING SUPPLY IN HOUSING ESTATES

Prior to the fieldwork on housing survey, the information on housing supply in housing estates was not defined in the 1970's and 1980's National Housing Census data. The classification used was based on rural and urban stratum and detailed grouping of house units were by house (detached, rowhouses etc), apartments, rooms and makeshift. Hence, the 1980 Census information was inadequate for assessing the housing supply. As a result, a housing survey from documented files from the Director of Land and Mines Office was carried out in 1990. Data from a total of 208 projects were compiled from individual development approval application files.

Based on the above Census and estimation, the total housing stock of the Study Area increased from 48,680 units (1970), 82,052 units (1980) to 130,260 units (1990). The urban and rural ratio fell significantly from 53.5% in 1970 to 26.2% in 1990. The percentage of housing estates in the Study area increased from 17.5% in 1970 to 69.7% in 1990. On the other hand, individually initiated housing fell from 77.5% in 1970 to 20.6% in 1990. The squatter housing decreased from 1970 to 1980 but increased again in 1990. (Figure 5.6)

Among the main reasons for the increase in housing estates and fall in individually initiated housing are (a) the former are relatively cheaper due to economies of scale in construction (inspite of cross subsidy of pricing from non Low Cost to Low Cost housing) (b) there is limited prime residential land and individual infrastructure cost is too high (c) the advantages of housing estates over individual housing in terms of amenities and social





CATEGORY	1970	1980	1990
URBAN			
Housing Estates	3,974 (17.5%)	20,668 (47.7%)	66,955 (69.7%)
Individual Houses	17,544 (77.5%)	17,964 (41.5%)	19,760 (20.6%)
Squatters	1,124 (5.0%)	4,659 (8.2%)	9,400 (9.8%)
Total	22,653 [46.5%]	43,291 [52.8%]	96,115 [73.8%]
RURAL	26,027 [53.5%]	38,761 [47.2%]	34,145 [26.2%]
GRAND TOTAL	48,680 [100%]*	82,052 [100%]**	130,260 [100%]***

Source : * 1970 General Housing Census and Structure Plan Technical Report 1982
** 1980 General Housing Census, Malaysia
*** Author's Documented Housing survey from Director of Land and Mines Office, Johor Bahru 1990.

Figure 5.6 Housing stock by year and Stratum in the Study Area

facility provision. Therefore, the trend of increasing housing estates will continue because of the advantages of housing estates over other methods of house building. Individually initiated housing will be limited to infill development in inner city areas.

The housing supply profile in figure 5.7 showed that the supply peaked in 1974, 1978, 1982 and 1986. The four year cycle was probably related to the average duration for project completion or perhaps to the general election years in the country. The time series analysis results from the documented housing survey were as follows:-

(i)Scale of housing project

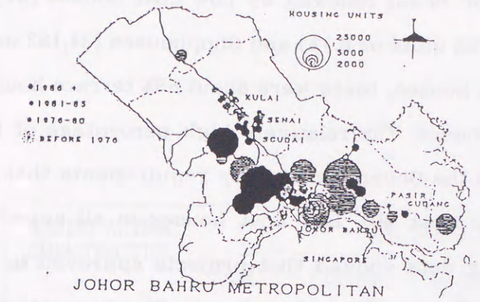
The scale of housing projects changed drastically from an average of less than 20 units in the 1970's to larger housing projects of more than 1,000 units. The total number of houses approved had increased about fourfolds from 1975-1980 (about 30,000 units) to 1981-85 (about 130,000 units). A majority of large housing estates (more than 3,000 units) were approved in the early 1980's(refer Appendix 4B pp280).

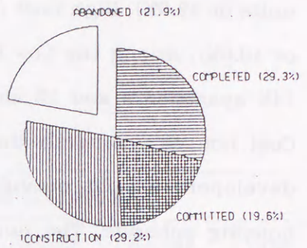
The scale of housing projects also increased from the city centre to the outer areas, particularly in Pasir Gudang/Plentong and Scudai area. Some of these major developed housing projects are Taman Johor Jaya/Taman Austin/ Taman Desa Jaya (a total of more than 10,000 units) in Plentong area and Taman University/Taman Tun Aminah/ Taman Perling (a total of more than 10,000 units) in Scudai area. This universal urban growth pattern was due to the expansion of the city outwards and the availability of larger and cheaper lands which allowed larger housing projects to be implemented.

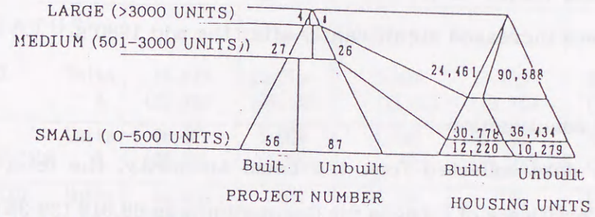
(ii) Housing types

Out of the total approved houses, the highest number was the Medium Cost

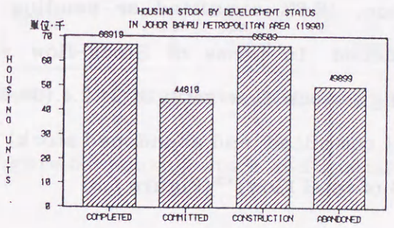
HOUSING SUPPLY PROFILE

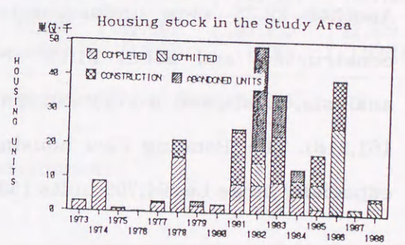






HOUSING STOCK BY YEAR AND DEVELOPMENT STATUS





HOUSING STOCK BY YEAR AND HOUSE CATEGORY

YEAR	NO PROJECT	SHOPHOUSES UNITS	%	LOW COST HOUSES· UNITS	%	MEDIUM COST HOUSES·· UNITS	%	HIGH COST HOUSES··· UNITS	%	TOTAL UNITS
1973	6	370	12.7%	186	6.4%	1826	62.7%	611	21.0%	2913
1974	3	623	7.0%	0	0.0%	2378	26.5%	5962	66.5%	8963
1975	9	128	13.7%	67	7.2%	557	59.5%	183	19.6%	935
1976	3	11	6.4%	0	0.0%	0	0.0%	161	93.6%	172
1977	13	170	5.4%	1404	44.6%	1325	42.1%	248	7.9%	3147
1978	14	2878	13.7%	8823	41.9%	8193	38.9%	1170	5.6%	21064
1979	16	369	11.5%	843	26.3%	1720	53.6%	278	8.7%	3210
1980	14	134	5.6%	421	17.6%	1343	56.3%	489	20.5%	2387
1981	28	5225	21.1%	9584	38.8%	8733	35.3%	1188	4.8%	24730
1982	18	6029	12.3%	25218	51.6%	16502	33.8%	1145	2.3%	48886
1983	18	3816	8.5%	17437	49.9%	13948	39.9%	513	1.5%	34914
1984	27	1289	9.2%	2633	20.1%	7578	57.8%	1696	12.9%	13116
1985	18	1834	10.4%	7004	39.8%	7740	44.0%	1000	5.7%	17578
1986	11	1885	4.8%	19457	49.3%	17452	44.2%	662	1.7%	39456
1987	5	160	9.4%	1096	64.2%	451	26.4%	0	0.0%	1707
1988	9	141	2.8%	3853	75.7%	1079	21.2%	16	0.3%	5089
TOTAL	204	24182	10.6%	97938	42.9%	90825	39.8%	15322	6.7%	228137

Figure 5.7 Scale of Housing estate development and Housing type

terrace houses (90,825 units or 39.8%) followed by Low Cost houses (97,938 units or 42.9%), High Cost (15,322 units or 6.7%) and Shophouses (24,182 units or 10.6%). Among the Low Cost houses, there were about 85% terrace houses, 14% apartments and 1% shophouses. The relatively high percentage of Low Cost houses was partly due to the Government policy requirements that the developers should provide at least 40% Low Cost houses in all approved housing schemes. The housing data showed that projects approved in the 1970's consisted mainly of Medium and High Cost houses.The Percentage of Low Cost houses increased significantly after the mid 1980's.

(iii) Status of construction

Based on the data collected from the Local Authority, the total completed houses with Certificate of Fitness for Occupation was 66,919 (29.3%). This was based on 154 projects out of a total of 208 approved housing schemes. Another 29.2% were underconstruction, 19.6% committed or pending for construction and about 21.9% abandoned. In terms of Stock-flow ratio analysis, it showed a very current high stock-flow ratio of 1: 2.4.(66,919 : 161,218). The 'Pending Flow housing' (committed and abandoned stock) was especially large i.e. 94,709 units (58.7% of total Flow)*3(Figure 5.8)

(iv) Spatial distribution of housing estates

There is a distinct concentrated development in Johor Bahru-Senai-Pasir Gudang corridor. The 1970-1980 period showed a marked increase in built up area in the Metropolitan Region. Among the zones, Plentong/ Pasir Gudang (Zone D) has the highest number of approved housing units (103,950 or 45.6% of the total stock) followed by Scudai (Zone C with 42,862 units or 18.8%), and Tampoi Zone B with 41,592 units or 18.2%).

(v) Time taken for project completion

Based on the documented housing data 1973-1989 in the Study Area, the

HOUSING PATTERN CHARACTERISTICS		TOTAL	ZONE DISTANCE FROM CITY CENTRE				
			CENTRE A	10-20KM B	20-30KM C	20-30KM D	>30KM E
● STATUS							
BUILT	Units	66,919	15,071	9,487	16,605	19,876	5,780
	%	(29.3%)	(88.1%)	(22.8%)	(38.7%)	(19.1%)	(25.7%)
UNDER-CONSTRUCTION	Units	66,509	1,001	4,849	23,675	36,806	178
	%	(29.2%)	(5.9%)	(11.7%)	(55.2%)	(35.4%)	(0.8%)
COMMITTED	Units	44,810	663	26,784	788	10,302	6,273
	%	(19.6%)	(3.9%)	(64.4%)	(1.8%)	(9.9%)	(27.8%)
ABANDONED	Units	49,899	369	472	1,794	36,966	10,298
	%	(21.9%)	(2.1%)	(1.1%)	(4.2%)	(35.6%)	(45.7%)
TOTAL	Units	228,137	17,104	41,592	42,862	103,950	22,529
	%	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

Source : Documented survey Director of Lands and Mines Office, January 1990.

Figure 5.8 Housing stock and spatial distribution

PROJECT SIZE	MEAN COMPLETION TIME (YRS)	NOTES
0 - 50	3.29	This is based on data from the Local authorities and State Director of Land and Mines. Assumptions were occassionally used when data on phases of construction is not available. The 4.24 years (say 5 years) is the lead time required for effective supply.
51 - 100	3.79	
101 - 200	4.31	
201 - 400	3.95	
401 -1000	5.29	
More than 1000	4.26	
MEAN	4.24	

Source : Documented survey Director of Lands and Mines Office, January 1990.

Figure 5.9 Average project completion time

average time taken from the approval date to the final completion and issue of Certificate of Fitness for Occupation (CFO) is about 4.24 years. Hence this time frame may be used as a guideline for 'sieving' out non implemented projects.

5.6 HOUSING ESTATES BY SOCIAL AREAS

Housing development in the Study Area can be classified into different social areas based on the following criteria :-

a) Physical form, density and cost

b) Ethnic grouping

Figure 5.10 shows an example of a mixed dwelling and multi ethnicity housing estate in the Study Area. The result is based on fieldwork survey on the actual distribution of residents.

(a) Physical Form, density and cost grouping

Based on physical form, density and cost, the social areas of housing are categorised as follows : (figure 5.11)

a) Exclusive houses (Royal palace, Colonial elite house, luxury Condominium)

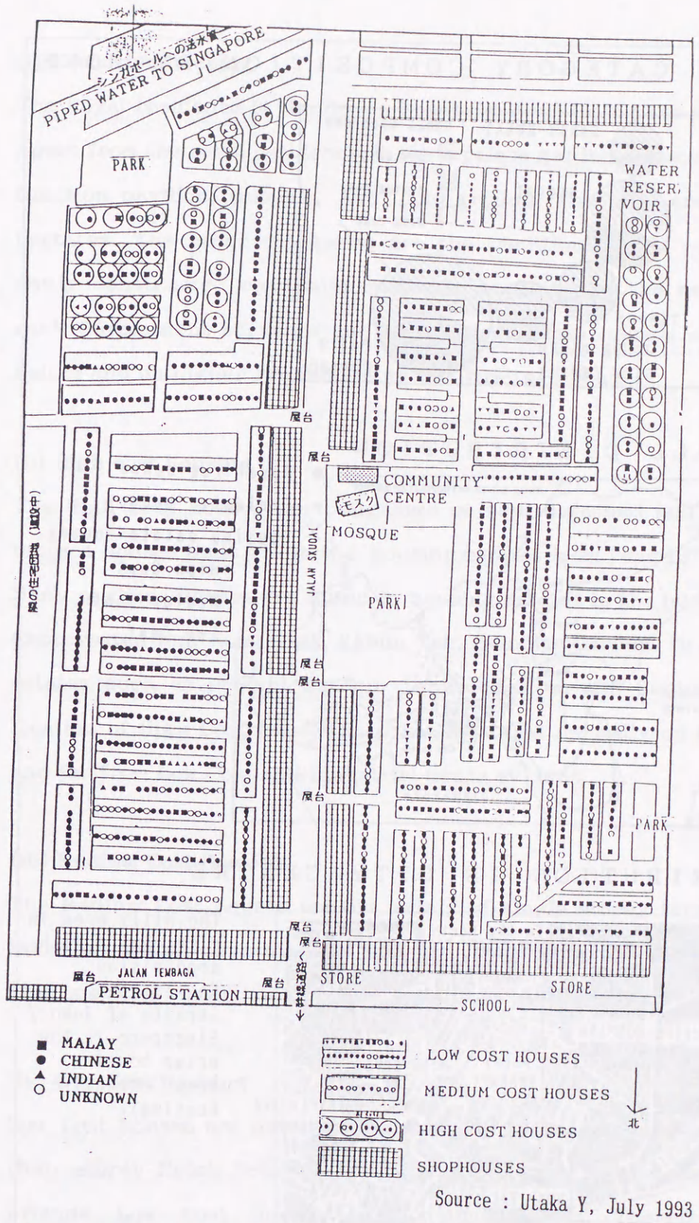
b) High Cost

c) Medium Cost (including shophouses)

d) Low cost

e) Public rented flats

Category (a) has the best areas; usually on high ground with commanding vistas and exclusively used since colonial time or earlier. Categories (b) to (e) are the housing estates built since 1970's . The public rented flats were built by the Municipal or State Corporation in the 1970's.



Source : Utaka Y, July 1993

Figure 5.10 An actual distribution of housing estate residents of multi dwelling and multi ethnicity.

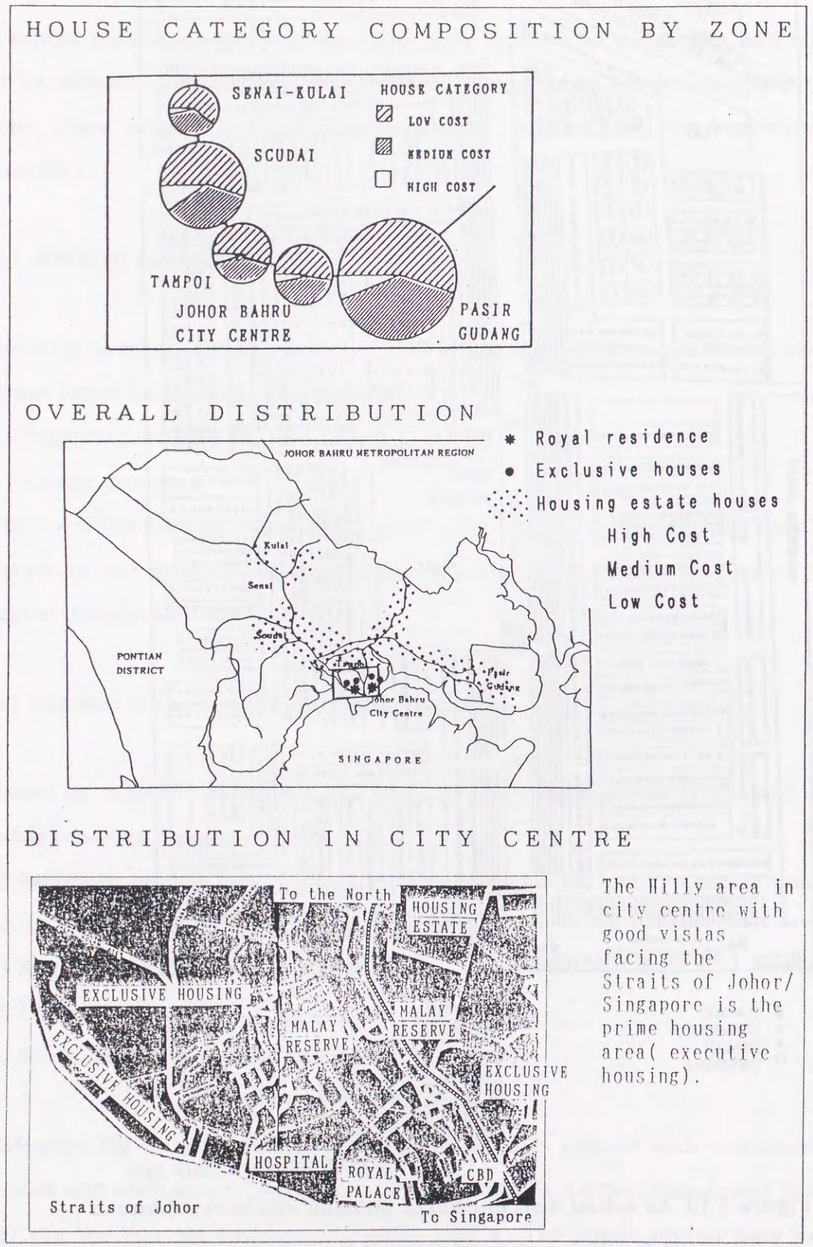


Figure 5.11 Social area by physical and density factors

(i) Executive housing

The Royal residence is the Crown Reserved Area facing the Straits of Johor. Apart from the royal residence, it has a palace garden, palace staff quarters, function pavilion, museum, and polo ground. The total area is about 300 hectares. The other categories are the traditional high cost houses and newly constructed condominium mainly occupied by the expatriates, High rank Government servants and local elites. These houses are close to the Palace and on higher ground facing the Straits of Johor.

(ii) High cost Housing

The High Cost houses are bungalows or semi detached and double storey terrace houses built within the housing estates from year 1970's onwards. Many of these houses are found in housing estates in the late 1960's such as Century Garden, Nong Chik, Kebun Teh, Melodies Garden. In larger housing estates such as Pelangi Garden, Tebrau Garden and Sentosa Garden, the location of High Cost houses in prime locations normally on higher ground, and far from Low Cost and industrial use is evident.

(iii) Medium Cost Housing

The Medium Cost houses consist mainly of single storey terrace houses. It takes up a high percentage of housing estate in terms of area and number. This is evident in all housing estates built in the 1970's and 1980's.

(iv) Low Cost Housing

Low Cost houses are found in high density terrace houses or walk up flats (four storey flats). From 1983, all private housing estates were required to provide Low Cost houses in housing estates. Therefore, the legal requirement has resulted in many housing estates having distinct sub areas of Low Cost, Medium Cost and High Cost areas with a ratio of 40:40:20 respectively.

This Case Study will focus only on housing estate development because

(i) it comprises the largest percentage of the urban houses .

(ii) Category (a) may not be accessible for survey.

(iii) public rented houses comprises a small percentage and the Government has intended to sell them to respective tenants with more than ten years of occupancy.

(b) Ethnicity grouping

The social area of housing in Malaysia is unique as it has a heterogenous society not only by income and house type but also by ethnic grouping. (Utaka Y and Ho, C.S. et al., 1993). Therefore it is natural that the racial affinity would enhance social area by racial grouping. This distribution is very much influenced by its historical development where the Malays were mainly employed in the public sector and the Chinese in the commercial sector. Figure 5.12 shows the conceptual distribution of social area by ethnicity in the Study Area.

The Malays occupied Malay reserved areas in the inner city areas such as Yahaya Awal (near Institutional and Governmental offices), Wadi Hana (traditionally occupied by Arab traders or teachers) and suburb areas of Malay reserve (Majidee area). The building of Universiti Teknologi Malaysia in Scudai has also created a high demand for houses by the Malay population. There is an image of Government servant or predominantly Malay population housing estate especially in the vicinity of the University. Typical housing estates are UDA New Town, Taman Perling, Taman Pulai and Taman Scudai.

The Chinese occupied the shophouses in the inner city and older housing

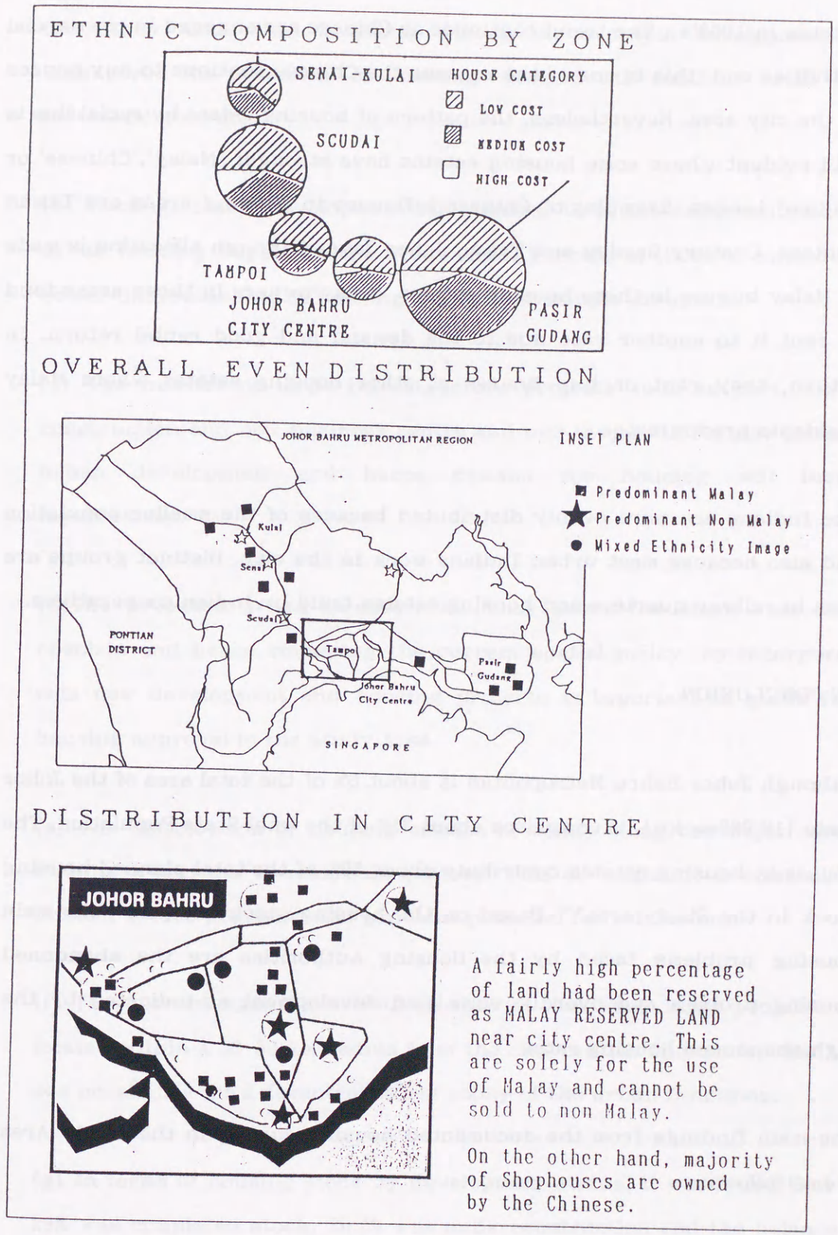


Figure 5.12 Social areas by ethnicity

estates in 1960's . The trend continues as Chinese are engaged in commercial activities and this is one of the reasons the Chinese continue to buy houses in the city area. Nevertheless, the pattern of housing estate by racial line is still evident where some housing estates have stronger 'Malay','Chinese' or 'Indian' images. Examples of Chinese influence in housing areas are Taman Sentosa, Century Garden and Taman Johor Jaya. Although allocation is made to Malay buyers in these housing estates, Malay owners in these areas tend to rent it to another race due to the demand and good rental return. In return, they rent or buy houses at other housing estates where Malay residents predominate.

The Indians are more evenly distributed because of the smaller population and also because most urban Indians work in the city. Distinct groups are seen in railway quarters and housing estates build by Indian cooperatives.

5.7 CONCLUSION

Although Johor Bahru Metropolitan is about 6% of the total area of the Johor State (18,986sq km), it comprises about 35% of the total State Population. The houses in housing estates contribute about 69% of the total planned housing stock in the Study area[*4]. Based on the housing stock analysis , the main housing problems faced by the Housing Authorities are the abandoned housing problem and overdue committed development as indicated by the high abandoned housing ratio.

The main findings from the documented housing survey in the Study Area are as follows:-

(a) The current rapid growing economy, industrialisation and high urbanisation has contributed to major housing estates being developed in

the Study Area. This is partly due to the overspill development from Singapore. The potential of housing demand will continue with rapid industrial growth.

(b) Housing estates development will continue to be the major contributor of urban housing supply in the Study Area. Therefore, there is a need for a better understanding of housing demand and supply structure.

(c) The number of large infrastructure projects such as port, highway construction and new business centre and new towns will further accelerate urban development and hence demand for housing will increase significantly.

(d)The proposed urban structure in Johor Bahru Structure Plan may be obsolete and hence reviewing the current spatial policy by incorporating this new development and housing projects is important to guide future housing approval in the Study Area.

(e) The distribution of housing estates is mainly along the major corridor forming a corridor development pattern. This development is economical in infrastructure provision and provides potential for rail service.

(f) The current spatial distribution showed that many large projects were located within a 20-39 km radius from the city centre. This shows that there is a possibility for a decentralisation policy of the urban functions.

(g) In terms of housing stock by development status, it was found that only 29% was completed stock, 29.2% was underconstruction and the balance was committed and abandoned stock. The stock-flow ratio of about 1:2.4 is very high and hence there is a need for a comprehensive housing approval and

monitoring system.

(h) The Low Cost housing policy has contributed to a mixed dwelling pattern of housing estate as evident in the Study area where the mix ratio is 40:40:10:10 (Low Cost : Medium : High : Shophouses) This pattern of distribution will continue with the present policy on Low cost housing. In addition, the housing estates are grouped by social areas in terms of density and ethnicity.This is unique as Malaysia is a multi ethnic nation.

Based on the above preliminary findings on the characteristics of housing estates, a detailed analysis of housing stock particularly on abandoned housing should be carried out.The Structure plan 's proposal on urban structure should also be reviewed to prevent future urban sprawl and improve transportation system because without good public transportation, severe congestion problems would result in the existing pattern.

NOTES

(1) Johor Bahru Metropolitan is defined as Johor Bahru district in this Study to ensure data standardisation with the National Census for future planning. The author strongly feels that the arbitrary definition of Metropolitan area is inadequate and posed problems for data management.

(2) The urban landuse is defined as land included in local planning areas of the 4 district councils. Hence, it includes built up land and land pending for urban development (housing and industrial use).

(3) The term Pending Flow and Total Flow of Housing supply is defined in pp73 and illustrated in Figure 4.3 pp 74. The rationale for defining Pending Flow as Abandoned and Committed housing stock is that both of these categories are within the control of the Authority to monitor the supply. The Completed housing and underconstruction stock are difficult for the Authority to 'control' and monitor as these projects have residents or committed buyers.

(4) The percentage is lower if the total housing stock includes houses outside Local Authorities in the Metropolitan areas.

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